UAA College of Engineering
UNIVERSITY of ALASKA ANCHORAGE

Snow Cover in Alaska: Comprehensive Review

Final Report

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Abstract

This report presents the results of a statistical analysis of snow cover in Alaska using historical data acquired from the Global Historical Climate Network. Measurements of snow depth and snow water equivalence were collected for Alaska stations between 1950 and 2017. Data cleaning and a distribution analysis were completed for all stations. Finally regression equations were developed to estimate snow water equivalence using recorded snow depth data from Alaska stations.

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Introduction

Snow loads are an important aspect of structural design in cold climates. In some areas, the weight of accumulated snow on a structure represents the most significant load that the structure will see in its lifetime. In such areas, accurate estimates of potential snow loads directly affect the safety, reliability, and economy of that structure.

Structural engineers rely on published ground snow load values to calculate the forces for which their structures must be designed. Outside the major cities in Alaska, these load values were most recently published in 1987, over 30 years ago (Leslie el al. 1989). Determining probability-based snow loads requires both a long record of measured snow-depths and knowledge about the average snow density for each depth. The values used for the latter in calculating the 1994 snow loads have also been questioned, causing disagreement about what loads to use in design.

The 2012 International Building Code (IBC) defers the determination of snow loads for structural design to the "Minimum Design Loads for Buildings and Other Structures," commonly referred to by its designation, ASCE/SEI 7-10.

The American Society of Civil Engineers (ASCE) Structural Engineering Institute (SEI) has published standards covering the minimum design loads for buildings and other structures. These design standards are contained within Standard ASCE/SEI 7-10 and are on their third printing which was issued on March 15, 2013. Section 7 covers snow loads and has subsections covering the following: symbols, ground snow loads, flat roof snow loads, sloped roof loads, partial loading, unbalanced roof snow loads, drifts on lower roofs, roof projections and parapets, sliding snow, rain-on-snow surcharge load, ponding instability, and existing roofs. Additionally, section 7 contains a figure for the contiguous United States of America depicting ground snow loads with lb/ft^2 contour lines. Many of the lb/ft^2 ground snow load contour lines have an associated upper elevation limit in feet, which indicates at what elevation a site-specific case study should be performed to determine the actual ground snow load design load. There are also contours and counties labeled CS which indicates a case study should be completed to determine the actual ground snow load design load for that contour or area. Alaska does not have a lb/ft^2 ground snow load contour map within section 7, but rather a table of published lb/ft^2 and kN/m^2 ground snow loads for 33 different communities across Alaska.

Section 7.2 Ground Snow Loads provides the standard to determine the design ground snow load for site-specific case study regions. Proposed case studies must be approved by the jurisdictional authority, and be based on an extreme value statistical analysis, using a 2 percent annual probability of being exceeded (50-year mean recurrence interval). The following table presents the ASCE/SEI ground snow loads for select Alaskan communities:

Table 7-1 Ground Snow Loads, p_g, for Alaskan Locations

	p_g			p_g			p_g	
Location	lb/ft²	kN/m²	Location	lb/ft²	kN/m²	Location	lb/ft²	kN/m²
Adak	30	1.4	Galena	60	2.9	Petersburg	150	7.2
Anchorage	50	2.4	Gulkana	70	3.4	St. Paul	40	1.9
Angoon	70	3.4	Homer	40	1.9	Seward	50	2.4
Barrow	25	1.2	Juneau	60	2.9	Shemya	25	1.2
Barter	35	1.7	Kenai	70	3.4	Sitka	50	2.4
Bethel	40	1.9	Kodiak	30	1.4	Talkeetna	120	5.8
Big Delta	50	2.4	Kotzebue	60	2.9	Unalakleet	50	2.4
Cold Bay	25	1.2	McGrath	70	3.4	Valdez	160	7.7
Cordova	100	4.8	Nenana	80	3.8	Whittier	300	14.4
Fairbanks	60	2.9	Nome	70	3.4	Wrangell	60	2.9
Fort Yukon	60	2.9	Palmer	50	2.4	Yakutat	150	7.2

Figure 1 - Table 7-1 from ASCE/SEI 7-10.

A “Guide to the Snow Load Provisions of ASCE/SEI 7-10”, by O’Rourke was published in 2010 as an accompaniment to ASCE/SEI 7-10 Chapter 7 Snow Loads. The opening section indicates the U.S. snow load isolines were generated using a combination of National Weather Service (NWS) first-order station readings, daily snow depth “co-op” stations, and monthly NRCS depth and load station readings. To calculate the 50-year snow load ρ_g in lb/ft² from 50-year snow depth h_g readings in inches, the following equation was used (Tobiasson and Greatorex 1996):

$$\rho_g = 0.279 h_g^{1.36}$$

Mention is also made of a bi-linear system of equations known as the Rocky Mountain Conversion Density (RMCD). As stated the equations are as follows:

$$for\ h_g < 22\ inches, then\ \rho_g = 0.9h_g + 0.20$$

$$for\ h_g > 22\ inches, then\ \rho_g = 2.36h_g - 31.92$$

The RMCD equations predict larger ground snow loads than the Tobiasson and Greatorex equation. Additionally, a discussion of Site-Specific Case Studies is provided in section 2.2. It states: ”a case study involves regressing 50-year ground snow load values versus elevation for a number of sites in close proximity to the site of interest. The least squares straight line then establishes the local reverse lapse rate, which in turn can be used to establish the 50-year ground snow load for the site of interest. The lapse rate is the decrease in temperature for a unit increase in elevation. As used herein, a reverse lapse rate is the increase in ground snow load for a unit increase in elevation." The reverse lapse rate results are presented in units of lb/ft² of ground snow load per 100 ft of elevation gain (O'Rourke 2010).

Another important document and the one which largely influenced the methodology used in this study was "Alaska Snow Loads" by Wayne Tobiasson and Robert Redfield. In this report, log-normal depths of snow on the ground (feet) versus a Brom's probability (%) were plotted for each of the available 137 locations in Alaska, and from these plots, a corresponding depth was determined for each desired ground snow depth return period. After conversion density values were determined for each year at each site, a plot of conversion density (pcf) versus ground snow load (psf) was generated for each site. These plots were extrapolated out to a constant density for heavy snow loads, and this maximum density was valid regardless of the return period. Further analysis was conducted to separate out conversion density results by elevation and proximity to the coast. Figure 2 illustrates a graphical representation of the regional conversion density statistical analysis.

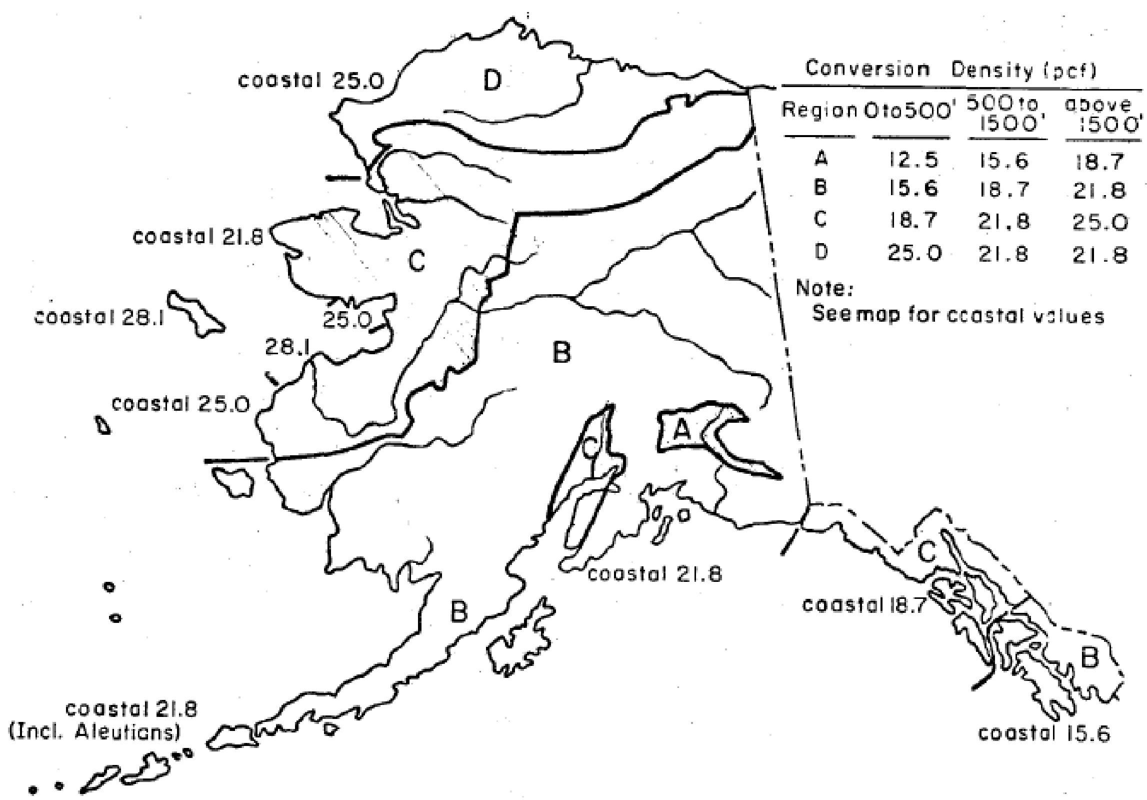

Figure 2 – Regionalized Conversion Densities from Alaska Snow Loads by Tobiasson and Redfield.

The "Alaska Snow Loads" report also discusses the usefulness of maps of Alaska with overlain ground snow load isolines, indicating that the variations in snow load can vary widely across local regions. An example is given for 4 locations within 11 miles of Juneau; the depth of ground snow varies by factors of roughly 0.2, 1.2, and 1.7. The authors indicate snow depth isolines should not be generated for Alaska, as designers should make an effort to look at the variations of nearby sites with attention paid to elevation and other geographic features to make a more meaningful determination (Tobiasson and Redfield 1973).

As described in the methodology portion of this report, our team opted to use a variation of the Tobiasson and Redfield methodology, but with access to a far greater duration of weather data and with a more extensive list of available weather stations. Additionally, we have used MATLAB software and generated scripts to automate the arduous calculations.

Project Objectives

The overall goal of this research is to update and improve the information available to the design community on snow loads in the State of Alaska. Below are primary objectives of this project:

1) Assemble the available data for recorded precipitation in Alaska
2) Compile engineering design snow load data for a maximum number of locations in Alaska
3) Utilize the data to determine probability-based snow depths for as many locations as possible
4) Utilize the data to investigate the relationship between depth and density at locations throughout Alaska

Methodology

Data acquisition

The Global Historical Climatology Network (GHCN) portal from the National Oceanic and Atmospheric Administrations (NOAA) National Centers for Environmental Information was used to acquire the project data <https://catalog.data.gov/dataset/global-historical-climatology-network-daily-ghcn-daily-version-3>.

The data for all Alaska stations are located using the following geographical limits:

- Latitude: from 51 degrees North to 72 degrees North
- Longitude: from 172 degrees East to 130 degrees West

The Alaska dataset (including several stations in Canada and Russia within the bounding box) comprises 1,201 stations spanning a period ranging from 1905 to 2017. It should be noted many stations have gaps in time where data is either missing or was not collected.

The following climate variables were extracted for each station:

- station ID
- date (dd-mmm-yyyy)
- snow Depth (mm)
- water equivalent of snow on the ground (tenths of a mm)
- latitude (decimal degrees)
- longitude (decimal degrees)

Of the 1,201 stations above, 951 have snow depth (SNWD) data available, 125 have snow water equivalent (WESD) data, and 122 stations have both SNWD and WESD readings.

It should be noted that the GHCN data for SNWD is recorded in mm, and the data for WESD is recorded in tenths of a mm. This makes the conversion from water depth to snow weight a simple conversion as 1/10 mm of water at 4° C = 1 Pa.

Data pre-processing

Data record period: Weather readings recorded prior to 1950 were excluded.

During World War II a much greater emphasis was put on processing weather records to make accurate weather predictions. Weather information essentially became a wartime weapon. As a result, an increased number of weather stations were deployed in the 1940s, and standardized training programs and reporting networks were developed (NOAA 2012). Weather readings reported after 1950 are believed to follow similar or standardized reporting methods and are therefore more reliable. Additionally in 1952, the U.S. Weather Bureau recording stations were tasked with taking daily WESD readings (Thom 1966).

Minimum years of records: Sites with 10 or fewer years of data were rejected.

A minimum of 11 years of collected data is not an ideal sample size, however, due to the scarcity of data across Alaska this criterion was established. At a 95% two-sided confidence interval and for a typical standard deviation of 1.5, a sample size of n=11 predicts the estimated mean lognormal value to be within 38 percent difference from the true arithmetic mean (Perez & Lefante 1997). In other words, for a site with 11 seasonal maximum readings, there is a 62 percent chance the average value of the measurements, is the average value of the total population (at a 95% level of confidence). As an example of the above confidence interval and standard deviation, n=251 would be required to achieve a 5 percent difference from the true arithmetic mean.

Data cleaning

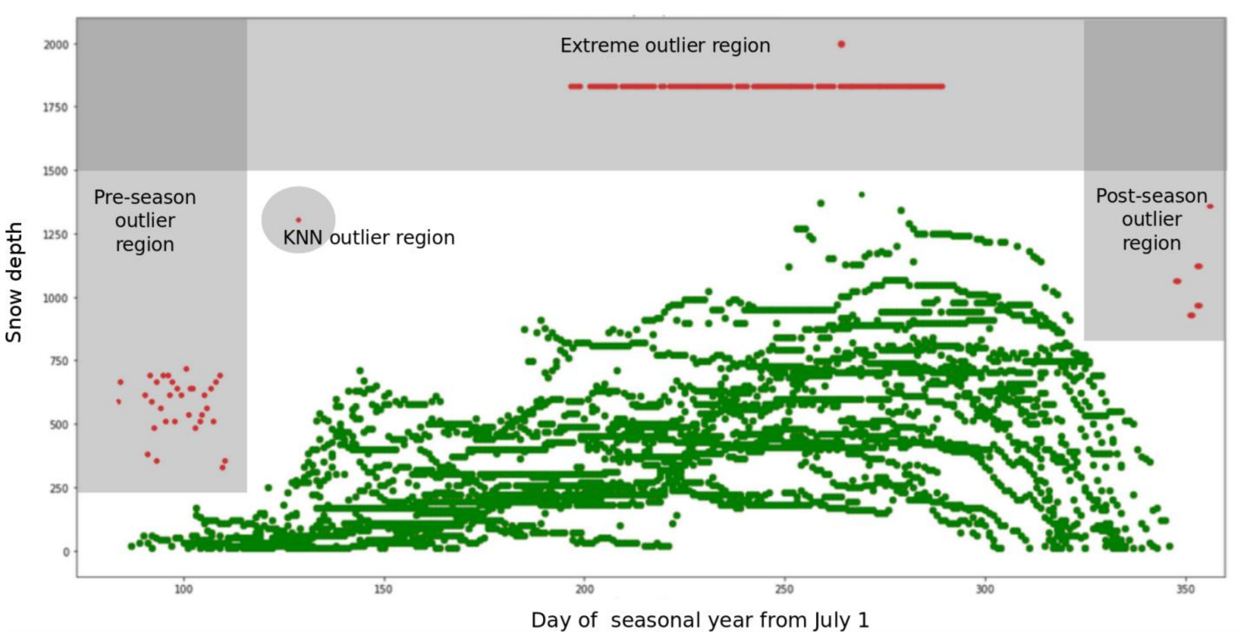

Figure 3 - Cumulative annual plots overlain on one seasonal year.

Extreme outliers were identified by first plotting a site's entire dataset by the day of the seasonal year verses either snow depth or snow water equivalence. Each site was then subdivided into sites which needed cleaning and sites which appeared acceptable.

Sites needing cleaning were identified because they had points in low-density areas of the plot. In those sites needing cleaning, outliers were identified based on three assumptions:

- Snow depth and snow water equivalence measurements gradually decrease as environmental conditions change.
- On an annual basis values are largely continuous.
- Large unsupported snowfalls are not possible during summer months.

For the sites which needed cleaning, the distribution of data points for that site was evaluated and, based on the criteria listed above, three regions were identified: Extreme outliers, Pre-season outliers, and Post-season outliers. The size of each region was dependent on the nature of the variable plotted and the site itself, see Figure 3 for an example.

Any points falling in one of the three regions defined above were identified as outliers and removed. Additionally, isolated individual points falling outside of those regions were identified using k-nearest neighbors (KNN) and removed. Some sites were also cleaned using a technique which subset the top 100 values into two categories consisting of 20 and 80 data points. The algorithm removed any values in the top 20 group if in the same year the difference between the minimum value in that group was greater than or equal to 300 mm of the maximum value in the bottom 80 group. Finally, sites were visually evaluated for over-cleaning on an annual basis. Algorithmically removed values were restored if the was enough supporting data for that year that the values were plausible.

While substantial efforts were made to clean the source data, there are some remaining issues with the data cleaning. For example, it is possible that some annual outliers which are located in high concentration areas (green points in overlaid annual plots, see Figure 3) were not removed. In some cases, partial or incomplete years were not removed. There is also a possibility that a very small percentage of sites were over-cleaned and not caught in the quality check.

Final datasets for analysis

The cleaned and inspected final dataset used for analysis consists of 49 stations with WESD values and 341 stations with SNWD values (Figure 4).

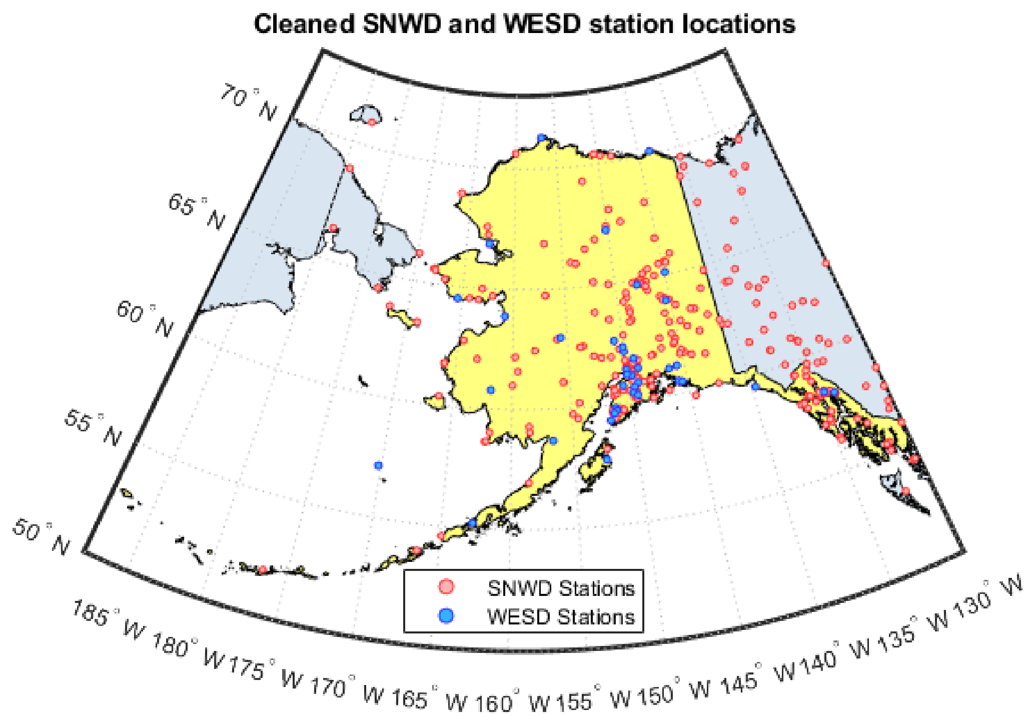

Figure 4 - Map of Alaska depicting the location of 341 SNWD stations and 49 WESD stations.

Statistical analysis

The following summary statistic of the seasonal maximum SNWD (snow depth) and the seasonal maximum WESD (snow water equivalent) were determined and tabulated for all sites where applicable:

- The mean (μ);
- The standard deviation (σ) of the mean;
- The histogram;
- Cumulative probability distributions.

A cumulative probability distribution curve can be used to calculate various return periods. For example, the 50-year return period event has a 2% chance of occurring each year, while a 100-year return period event has a 1% chance of occurring each year. The SNWD or WESD reading that corresponds to the 98% mark on the cumulative distribution curve would be the 50-year event.

ASCE/SEI 7-10 selected the lognormal distribution to estimate all ground snow loads (ASCE/SEI 7-10). Using the cleaned data, we calculated the 50-year recurrence values for SNWD and WESD for each station using the lognormal distribution and the distribution selected from the best-fit distribution analysis. Our lognormal results provide a good comparison of how the current cleaned data compares to the historical data used to compute the ASCE/SEI 7-10 Alaska Ground Snow Load table 7-1.

Distribution analysis

An analysis was conducted to identify the best fit distribution of the seasonal maximum data for both SNWD and WESD values.

The Matlab *fitdist* function was used to fit the following 11 distributions to the data for each SNWD station and each WESD station:

- Normal
- Lognormal
- Extreme Value
- Gamma
- Weibull
- Logistic
- Log-logistic
- Nakagami
- Birnbaum-Saunders
- Inverse Gaussian
- Rayleigh

This step created probability distribution objects within Matlab, which contain the source data points and the relevant parameters for each distribution.

In this analysis, probability plots for the normal distribution and the lognormal distribution for each SNWD and each WESD station were generated. On each of these probability plots, the other ten distributions objects were also plotted (see Figure 5 and Figure 6 as an example).

For each distribution analysis plot, the seasonal maximum value for each year on record is presented as a red circle, with the x-axis depicting the magnitude of either the SNWD or WESD reading, and the y-axis depicting the probability for that event to not occur on any given year. For each plot the distribution that controls the scale of each axis is depicted as a dashed black line; for reference and comparison, the other ten distribution objects are plotted with varying colors and line types.

A decision on the best-fitted distribution for a particular station was made based on visual assessment of the distribution plots. These choices for SNWD and WESD values for each station are further called the "Assigned distribution."

Figure 5 and Figure 6 illustrate the normal distribution and lognormal distribution analysis plots for the WESD McGrath Airport station. As can be seen below, the seasonal maximum values do not track perfectly along the normal or the lognormal distribution lines. A significant observation is the data points have a distinct concave shape on the lognormal plot indicating the data is not well represented by the lognormal distribution. The normal distribution is a far better representation of the data while the gamma or Rayleigh distributions appear to follow the data more closely. When multiple distributions appeared viable, the more conservative (lower on the y-axis) distribution was selected, with an emphasis on conservatively tracking well along the upper third of the data points.

The analysis of distributions for each station used in this study is provided in Appendix 3.

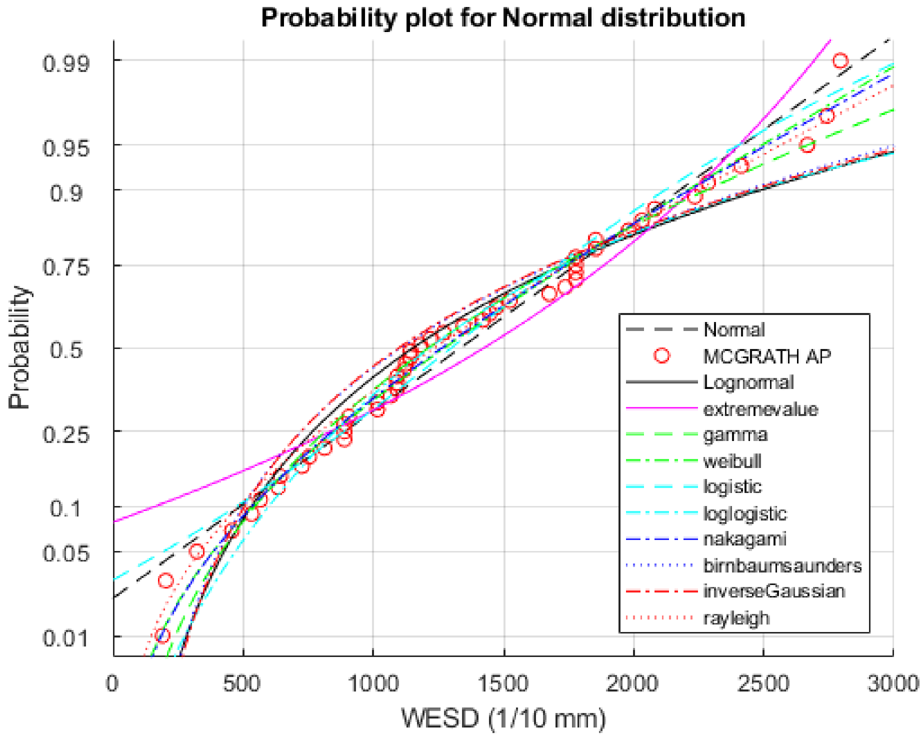

Figure 5 – Normal distribution probability plot for McGrath Airport seasonal maximum WESD values.

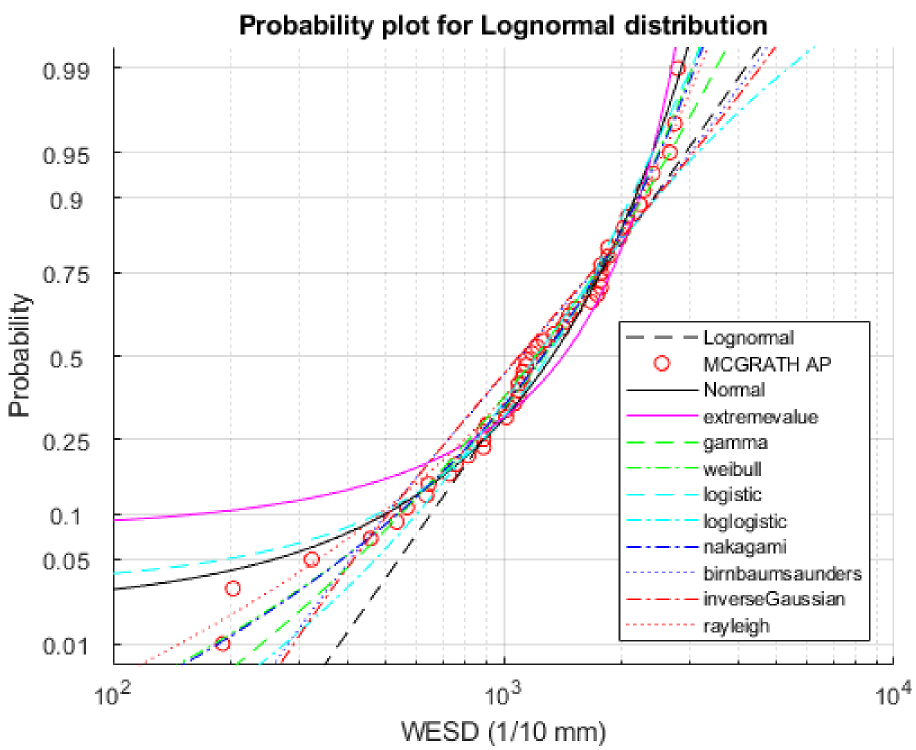

Figure 6 – Lognormal distribution probability plot for McGrath Airport seasonal maximum WESD values.

Regression analysis

The relationship between WESD and SNWD was evaluated using the method of least squares while fitting the power-law function ($y=Ax^B$). Two options were evaluated in this analysis: The seasonal maximums of SNWD and WESD for all stations follow the lognormal distribution, and each WESD and SNWD station has a unique distribution assignment.

If an assumption is made that the seasonal maximum data for both SNWD and WESD follow the ***lognormal distribution*** for all stations in Alaska, the relationship between snow depth and snow water equivalent can be described by the following equation:

$$\rho_g = 0.0499 h_g^{1.5200}$$

Where: ρ_g = ground snow load in Pascals

h_g = ground snow depth in millimeters

With:

SSE = 5.287e+07

R-squared = 0.96

Figure 7 illustrates the power fit function using the lognormal distribution.

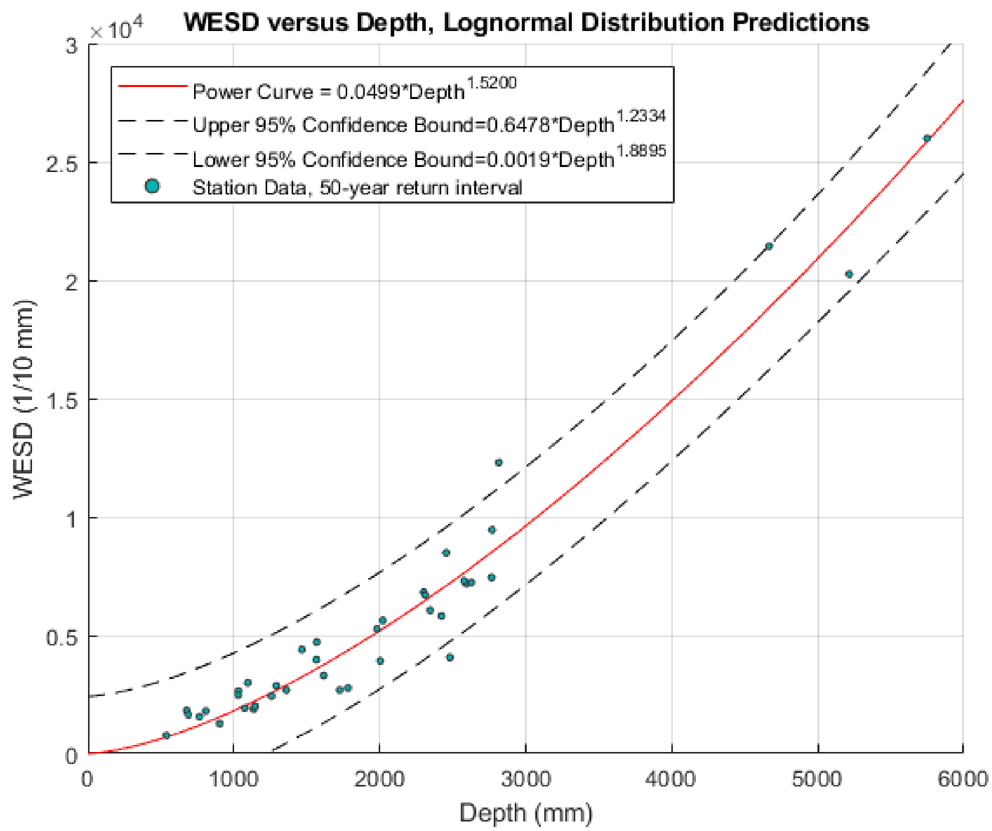

Figure 7 – Regression results for all recurrence intervals calculated using the lognormal distribution.

The relationship between snow depth and snow water equivalent using ***assigned distributions*** of the seasonal maximum data can be estimated as follows:

$$\rho_g = 0.1013 h_g^{1.4333}$$

Where: ρ_g = ground snow load in Pascals
h_g = ground snow depth in millimeters

With:

SSE = 8.889e+07

R-squared = 0.89

Figure 8 illustrates the power fit function using individually assigned distributions.

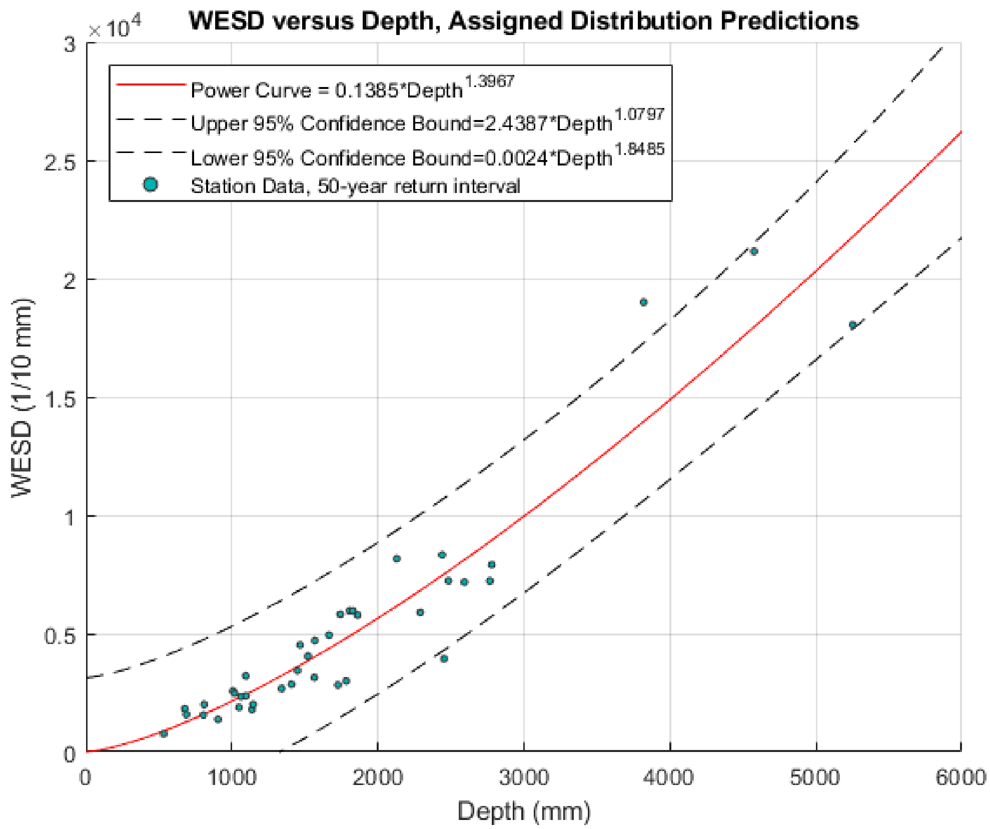

Figure 8 - Regression results for all recurrence intervals calculated using assigned distributions.

As can be seen in both Figure 7 and Figure 8 above, the power fit regression result is depicted as a red line, with the 95% confidence bounds as black dashed lines. Each turquoise dot represents a 50-year event or 2% recurrence interval for each of the 39 stations (with records of both WESD and SNWD) that were accepted following the data cleaning process. The 95% confidence bounds indicate the region that 95% of all 50-year events should occur within, or there is a 5% chance that a 50-year event for any given station will occur outside of the 95% bounds.

Recurrence Intervals

The 50-year WESD recurrence interval value for each WESD station has been calculated using the cleaned WESD measurements, the appropriate distribution, and an inverse cumulative distribution function evaluated at a 98% probability (see Table 2 Appendix 1).

The 50-year recurrence interval values for WESD were also calculated for all SNWD stations using the cleaned SNWD measurements, the appropriate distribution, an inverse cumulative distribution function evaluated at a 98% probability, and the appropriate regression equation (see Table 3 Appendix 2).

It should be noted for both Figure 7 and Figure 8, few if any of the actual 50-year recurrence values lie on the regression equation line. A conservative design approach would use predictions closer to the upper confidence bound.

Discussion

As part of the analysis, a comparative table for the 33 ASCE/SEI 7-10 Alaskan Locations was prepared. See Table 1 for a comparison of measured 50-year snow depths, and recommended building code design snow loads. For stations with WESD measurements, the calculated 50-year recurrence value was used to determine the recommended design load. For stations with only SNWD measurements, the appropriate regression equation was used to calculate the recommended design load.

Table 1 – Comparative table of current ASCE/SEI-7-10 snow loads and UAA recommended snow loads.

	Current ASCE/SEI-7		Recommended Revision Lognormal Distribution			Recommended Revision Assigned Distribution		
Location	**lb/ft²**	**kN/m²**	**lb/ft²**	**kN/m²**	**% difference**	**lb/ft²**	**kN/m²**	**% difference**
Adak	30	1.4	26	1.2	-13%	31	1.5	4%
Anchorage	50	2.4	51	2.4	2%	49	2.4	-1%
Angoon	70	3.4	74	3.5	5%	60	2.9	-14%
Barrow	25	1.2	34	1.6	37%	33	1.6	32%
Barter	35	1.7	42	2.0	20%	42	2.0	19%
Bethel	42	1.9	40	1.9	-4%	39	1.9	-7%
Big Delta	50	2.4	45	2.1	-11%	52	2.5	4%
Cold Bay	25	1.2	33	1.6	30%	33	1.6	30%
Cordova	100	4.8	98	4.7	-2%	98	4.7	-2%
Fairbanks	60	2.9	56	2.7	-7%	56	2.7	-7%

Fort Yukon	60	2.9	23	1.1	-61%	29	1.4	-52%
Galena	60	2.9	54	2.6	-10%	56	2.7	-6%
Gulkana	70	3.4	59	2.8	-16%	65	3.1	-7%
Homer	40	1.9	52	2.5	29%	52	2.5	29%
Juneau	60	2.9	60	2.9	0%	67	3.2	12%
Kenai	70	3.4	59	2.8	-15%	48	2.3	-32%
Kodiak	30	1.4	38	1.8	25%	42	2.0	39%
Kotzebue	60	2.9	56	2.7	-7%	59	2.8	-1%
McGrath	70	3.4	83	4.0	18%	66	3.1	-6%
Nenana	80	3.8	123	5.9	53%	100	4.8	26%
Nome	70	3.4	58	2.8	-17%	63	3.0	-11%
Palmer	50	2.4	33	1.6	-35%	38	1.8	-24%
Petersburg	150	7.2	124	6.0	-17%	134	6.4	-11%
Saint Paul	40	1.9	39	1.9	-2%	37	1.8	-7%
Seward	50	2.4	51	2.4	1%	57	2.7	13%
Shemya	25	1.2	-	-	-	-	-	-
Sitka	50	2.4	40	1.9	-19%	32	1.5	-37%
Talkeetna	120	5.8	85	4.1	-29%	82	3.9	-32%
Unalakleet	50	2.4	27	1.3	-47%	29	1.4	-42%
Valdez	160	7.7	151	7.2	-6%	151	7.2	-6%
Whittier	300	14.4	415	19.9	38%	317	15.2	6%
Wrangell	60	2.9	35	1.7	-42%	40	1.9	-33%
Yakutat	150	7.2	155	7.4	4%	151	7.2	1%

The percent difference was calculated using the following equation:

$$\Delta = \frac{(C - I)}{I}$$

Where:

Δ = percent difference

C = calculated value in lb/ft^2

I = ASCE/SEI-7 value in lb/ft^2

As can be seen above, there are nine stations using the lognormal distribution and eight stations using the assigned distribution that have recommended snow loads greater than the ASCE/SEI 7-10 design load by more than 10%. There are 12 stations using the lognormal distribution and 11 stations using the assigned distribution that have recommended snow loads less than the ASCE/SEI 7-10 design load by more than 10%.

Considering only the assigned distribution values, locations like Nenana is expected to have 50-year snow loads 38 lb/ft^2 beyond the recommended design snow load. Additionally, three other stations (Barrow, Cold Bay, and Kodiak) are expected to exceed the design load by 30% or more. These stations and others should be considered for revision in the ASCE/SEI 7-10 *Table 7-1 Ground Snow Loads for Alaskan Communities.* The table needs to be updated to reflect more recent historical data.

Figure 9 represents the current Tobiasson and Greatorex 1996 equation used to calculate Alaska snow loads alongside this reports regression equation results. As can be seen in Figure 9 for snow depths between 0 to 50 inches both equations will produce similar snow load results; for snow depths beyond 100 inches, the Tobiasson and Greatorex 1996 equation noticeably tends towards the lower 95% confidence bound. In general snow load predictions using this report's regression equations will be more conservative for structural design.

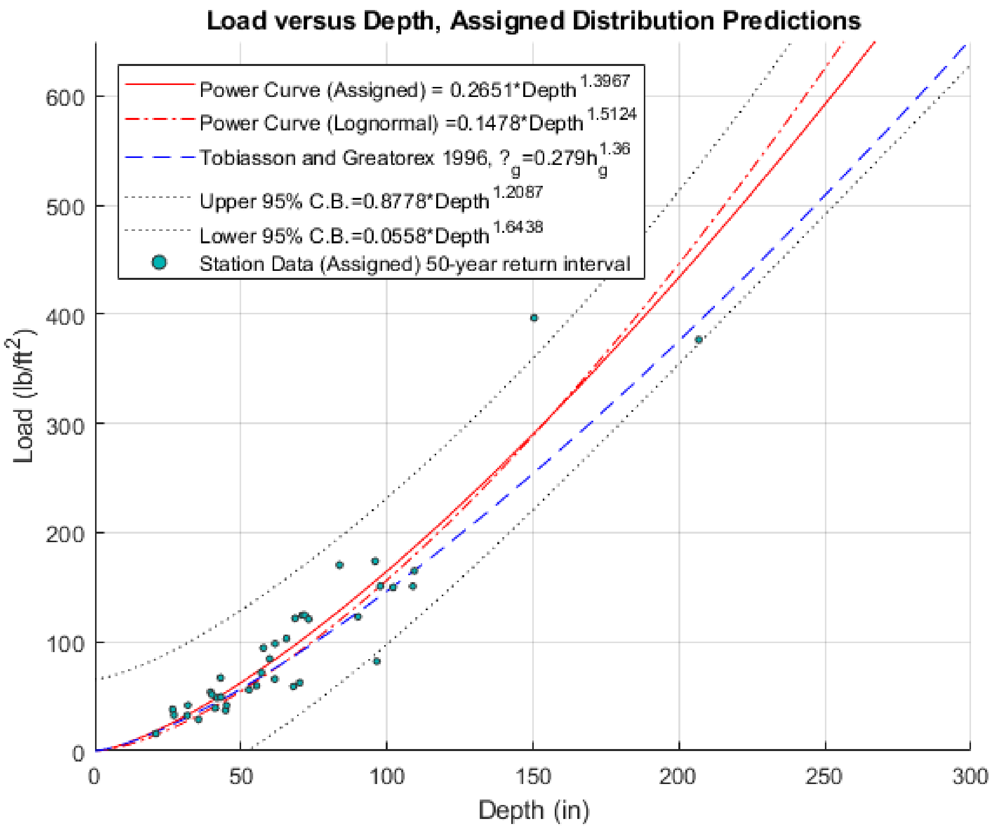

Figure 9 - Regression results in English units for all recurrence intervals calculated using assigned distributions.

Conclusion

This report represents the results of an extreme value statistical analysis of snow cover in Alaska using historical data acquired from the Global Historical Climate Network. The measurements of snow depth and snow water equivalence were collected for Alaska stations a period ranging from 1905 to 2017. Data cleaning and a distribution analysis were completed for all stations from 1950-2017. Regression equations were developed to estimate snow water equivalence using recorded snow depth data in multiple locations across Alaska. A comparison with the current ASCE/SEI 7-10 data and the recommended regression equations for predicting snow loads in Alaska was also completed.

As mentioned above, for both regression figures (Figure 7 and Figure 8), few if any of the actual 50-year recurrence values lay on the regression equation lines. When using values from Table 3 in Appendix 2, a more conservative design approach would use predictions closer to the upper confidence bound.

While substantial efforts were made to carefully process and validate the source data, several assumptions were made in this study:

Completeness and integrity of source data measurements. Careful data cleaning with manual validation revealed few instances where the daily snow measurements are incomplete. As an example, the source data records may contain daily measurements from the beginning of a snow season but abruptly drop after one or two months of observations, often not arriving at the peak of the snow season. Another example would be sparse measurements with significant gaps in records. In such cases, the largest value on the record was used as a maximum for this year, which may or may not be the real maximum value in that season. When further used in distribution analysis, this might impact on the shape of the curve and calculation of recurrence interval. Another example of the impact of data integrity is when the records are missing for an entire year, and even for several consecutive years. The effect of these gaps in the data continuity is similar to using years with incomplete daily values – missing annual maximums for distribution analysis.

Statistical analysis. Minimum eleven years of records was used as a criterion for including a particular station into the analysis in this study which may not be an optimal size of population for some statistical methods. In the distribution analysis, a statistical method was used to calculate possible candidate distributions, but the final decision on the best fit was made using professional judgment based on visual assessment of the plots. In some cases, a single distribution may not be the best fit, and a composition of two (or more) distributions can be a viable alternative.

To complement this research, some additional findings can be found in Master's thesis by Kurt Meehleis (2018). The theses elaborate on details of distribution fitting and present an analysis to determine how the quantity of daily data readings affected seasonal maximum predictions and how the quantity of seasonal maximum values affected 50-year return period predictions is presented. Finally, a stepwise regression analysis is conducted to show that for Alaska, station elevation did not significantly contribute to water equivalent snow depth.

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Appendix 1 - Predicted 50-year WESD Station's snow loads

Table 2 – Predicted 50-year return period snow loads, calculated for stations with recorded WESD

Measured 50-year Load Predictions		Lognormal Distribution		Assigned Distribution	
Location	Station ID	lb/ft²	kN/m²	lb/ft²	kN/m²
Anchor River Divide	USS0051K05S	117	5.6	124	6.0
Anchorage Hillside	USS0049M22S	121	5.8	125	6.0
ANCHORAGE INTL AP	USW00026451	51	2.4	49	2.4
BARROW POST ROGERS AP	USW00027502	34	1.6	33	1.6
BARTER ISLAND WSO AP	USW00027401	42	2.0	42	2.0
BETHEL AP	USW00026615	40	1.9	39	1.9
Bettles Field	USS0051R01S	73	3.5	67	3.2
COLD BAY AP	USW00025624	33	1.6	33	1.6
Coldfoot	USS0050S01S	69	3.3	60	2.9
Cooper Lake	USS0049L10S	197	9.5	171	8.2
CORDOVA M K SMITH AP	USW00026410	98	4.7	98	4.7
Fairbanks F.O.	USS0047P03S	50	2.4	52	2.5
FAIRBANKS INTL AP	USW00026411	56	2.7	56	2.7
Grandview	USS0049L09S	434	20.8	344	16.5
Granite Crk	USS0045O04S	38	1.8	38	1.8
Grouse Creek Divide	USS0049L14S	257	12.3	174	8.3
HOMER AP	USW00025507	52	2.5	52	2.5
Independence Mine	USS0049M26S	152	7.3	165	7.9
Indian Pass	USS0049M08S	238	11.4	213	10.2
JUNEAU INTL AP	USW00025309	60	2.9	67	3.2
Kenai Moose Pens	USS0050L02S	63	3.0	49	2.3
KING SALMON	USW00025503	16	0.8	16	0.8
KODIAK AP	USW00025501	38	1.8	42	2.0
KOTZEBUE RALPH WEIN AP	USW00026616	56	2.7	59	2.8
Little Chena Ridge	USS0046Q02S	61	2.9	56	2.7
Long Lake	USS0033J01S	543	26.0	377	18.0
MCGRATH AP	USW00026510	83	4.0	66	3.1
Mcneil Canyon	USS0051K14S	140	6.7	121	5.8
Monument Creek	USS0045Q02S	60	2.9	60	2.9
Moraine	USS0048M04S	142	6.8	84	4.0
Mt. Alyeska	USS0049L01S	392	18.8	363	17.4
Mt. Eyak	USS0045L01S	423	20.3	397	19.0
Mt. Ryan	USS0046Q01S	61	2.9	58	2.8
Munson Ridge	USS0046P01S	87	4.2	91	4.4
NOME MUNI AP	USW00026617	58	2.8	63	3.0
Point Mackenzie	USS0050M03S	55	2.6	54	2.6
Port Graham	USS0051K15S	177	8.5	121	5.8

ST PAUL ISLAND AP	USW00025713	39	1.9	37	1.8
Summit Creek	USS0049L19S	110	5.3	103	4.9
Susitna Valley High	USS0050N07S	92	4.4	95	4.5
TALKEETNA AP	USW00026528	85	4.1	82	3.9
Teuchet Creek	USS0045P03S	44	2.1	41	2.0
Tokositna Valley	USS0050N05S	126	6.1	123	5.9
Turnagain Pass	USS0049L13S	448	21.4	442	21.1
UNALAKLEET FLD	USW00026627	27	1.3	29	1.4
Upper Chena	USS0044Q07S	82	3.9	72	3.4
Upper Tsaina River	USS0045M07S	150	7.2	150	7.2
VALDEZ WSO	USW00026442	151	7.2	151	7.2
YAKUTAT STATE AP	USW00025339	155	7.4	151	7.2

Appendix 2 - Calculated 50-year SNWD Station's snow loads

Table 3 - Predicted 50-year return period snow loads, calculated for stations with recorded SNWD. Snow load is estimated from analysis of relations between SNWD and WESD (regression analysis). Values in parenthesis indicate lower 95% and upper 95% confidence bounds.

Calculated 50-year Load Predictions		Lognormal Distribution		Assigned Distribution	
Location	Station ID	lb/ft²	kN/m²	lb/ft²	kN/m²
ADAK	USW00025704	26 (12 - 50)	1.2 (0.6 - 2.4)	31 (11 - 67)	1.5 (0.5 - 3.2)
AISHIHIK A	CA002100100	23 (10 - 45)	1.1 (0.5 - 2.2)	23 (7 - 52)	1.1 (0.3 - 2.5)
AKLAVIK A	CA002200100	50 (26 - 84)	2.4 (1.2 - 4.0)	57 (24 - 107)	2.7 (1.2 - 5.1)
ALEKNAGIK	USC00500201	120 (78 - 173)	5.8 (3.7 - 8.3)	126 (69 - 196)	6.0 (3.3 - 9.4)
ALLAKAKET	USC00500230	143 (97 - 200)	6.9 (4.6 - 9.6)	74 (34 - 130)	3.5 (1.6 - 6.2)
ALYESKA	USC00500243	210 (156 - 272)	10.0 (7.4 - 13.0)	151 (88 - 226)	7.2 (4.2 - 10.8)
AMBER LAKE	USC00500247	90 (55 - 137)	4.3 (2.6 - 6.6)	95 (47 - 158)	4.5 (2.3 - 7.5)
AMBLER WEST	USC00500260	112 (71 - 164)	5.4 (3.4 - 7.8)	117 (63 - 186)	5.6 (3.0 - 8.9)
Anchor River Divide	USS0051K05S	110 (70 - 162)	5.3 (3.3 - 7.7)	104 (54 - 169)	5.0 (2.6 - 8.1)
ANCHORAGE FORECAST OFFICE	USC00500275	49 (26 - 84)	2.4 (1.2 - 4.0)	55 (23 - 103)	2.6 (1.1 - 4.9)
Anchorage Hillside	USS0049M22S	145 (98 - 202)	7.0 (4.7 - 9.7)	102 (52 - 167)	4.9 (2.5 - 8.0)
ANCHORAGE INTL AP	USW00026451	54 (29 - 90)	2.6 (1.4 - 4.3)	51 (21 - 98)	2.4 (1.0 - 4.7)
ANCHORAGE MERRILL FLD	USW00026409	43 (22 - 76)	2.1 (1.0 - 3.6)	44 (17 - 88)	2.1 (0.8 - 4.2)
ANCHORAGE RABBIT CREEK #2	USC00500284	139 (93 - 195)	6.7 (4.5 - 9.3)	135 (75 - 207)	6.4 (3.6 - 9.9)
ANCHORAGE UPPER DEARMOUN	USC00500281	129 (85 - 183)	6.2 (4.1 - 8.8)	94 (47 - 156)	4.5 (2.2 - 7.5)
ANDERSON LAKE	USC00500302	47 (24 - 80)	2.2 (1.1 - 3.8)	54 (23 - 102)	2.6 (1.1 - 4.9)
ANGOON PWR	USC00500310	74 (42 - 116)	3.5 (2.0 - 5.6)	60 (26 - 111)	2.9 (1.2 - 5.3)

ANIAK AP	USW00026516	114 (73 - 166)	5.5 (3.5 - 7.9)	123 (67 - 193)	5.9 (3.2 - 9.3)
ANNETTE ISLAND AP	USW00025308	29 (14 - 55)	1.4 (0.6 - 2.6)	36 (13 - 74)	1.7 (0.6 - 3.5)
ANNEX CREEK	USC00500363	240 (184 - 304)	11.5 (8.8 - 14.5)	261 (181 - 345)	12.5 (8.7 - 16.5)
ARCTIC VILLAGE	USC00500396	52 (28 - 88)	2.5 (1.3 - 4.2)	35 (13 - 73)	1.7 (0.6 - 3.5)
ATLIN	CA001200560	24 (11 - 47)	1.2 (0.5 - 2.3)	29 (10 - 63)	1.4 (0.5 - 3.0)
AUKE BAY	USC00500464	67 (38 - 108)	3.2 (1.8 - 5.2)	64 (28 - 116)	3.1 (1.3 - 5.6)
AURORA	USC00500490	40 (20 - 71)	1.9 (0.9 - 3.4)	42 (16 - 84)	2.0 (0.8 - 4.0)
BARANOF	USC00500522	245 (189 - 309)	11.7 (9.0 - 14.8)	249 (171 - 333)	11.9 (8.2 - 15.9)
BARROW POST ROGERS AP	USW00027502	21 (9 - 43)	1.0 (0.4 - 2.0)	27 (9 - 59)	1.3 (0.4 - 2.8)
BARTER ISLAND WSO AP	USW00027401	46 (24 - 80)	2.2 (1.1 - 3.8)	54 (23 - 102)	2.6 (1.1 - 4.9)
BEAVER CREEK A	CA002100160	33 (16 - 61)	1.6 (0.7 - 2.9)	39 (15 - 80)	1.9 (0.7 - 3.8)
BEAVER FALLS	USC00500657	123 (80 - 176)	5.9 (3.8 - 8.4)	137 (77 - 209)	6.5 (3.7 - 10.0)
BELUGA	USC00500685	97 (60 - 146)	4.6 (2.9 - 7.0)	85 (41 - 145)	4.1 (2.0 - 6.9)
BENS FARM	USC00500707	36 (17 - 65)	1.7 (0.8 - 3.1)	32 (11 - 68)	1.5 (0.5 - 3.2)
BETHEL AP	USW00026615	42 (21 - 74)	2.0 (1.0 - 3.6)	48 (19 - 93)	2.3 (0.9 - 4.5)
BETTLES AP	USW00026533	112 (71 - 163)	5.4 (3.4 - 7.8)	121 (66 - 191)	5.8 (3.1 - 9.1)
BIG DELTA AP	USW00026415	45 (23 - 78)	2.1 (1.1 - 3.7)	52 (22 - 99)	2.5 (1.0 - 4.8)
BIG RIVER LAKES	USC00500788	293 (235 - 357)	14.0 (11.3 - 17.1)	135 (76 - 208)	6.5 (3.6 - 9.9)
BLANCHARD RIVER	CA002100163	100 (62 - 150)	4.8 (3.0 - 7.2)	112 (59 - 179)	5.3 (2.8 - 8.6)
BOB QUINN AGS	CA001200R0J	69 (39 - 110)	3.3 (1.9 - 5.3)	54 (22 - 102)	2.6 (1.1 - 4.9)

BUHTA PROVIDENJA	RSM00025594	72 (41 - 114)	3.4 (2.0 - 5.5)	70 (32 - 125)	3.4 (1.5 - 6.0)
BURWASH A	CA002100182	23 (10 - 45)	1.1 (0.5 - 2.1)	30 (10 - 65)	1.5 (0.5 - 3.1)
CAMPBELL CREEK SCI CR	USC00501220	74 (42 - 117)	3.5 (2.0 - 5.6)	60 (26 - 111)	2.9 (1.3 - 5.3)
CANNERY CREEK	USC00501240	310 (253 - 374)	14.8 (12.1 - 17.9)	181 (111 - 259)	8.6 (5.3 - 12.4)
CANTWELL 2 E	USC00501243	103 (64 - 153)	4.9 (3.1 - 7.3)	111 (58 - 178)	5.3 (2.8 - 8.5)
CAPE HINCHINBROOK	USC00501308	157 (109 - 215)	7.5 (5.2 - 10.3)	87 (43 - 148)	4.2 (2.0 - 7.1)
CAPE LISBURNE	USC00501312	57 (31 - 95)	2.7 (1.5 - 4.6)	62 (27 - 114)	3.0 (1.3 - 5.4)
CAPE LISBURNE AFS	USW00026631	60 (33 - 99)	2.9 (1.6 - 4.7)	69 (31 - 123)	3.3 (1.5 - 5.9)
CAPE NEWENHAM	USC00501314	75 (44 - 119)	3.6 (2.1 - 5.7)	78 (37 - 136)	3.8 (1.8 - 6.5)
CAPE NEWENHAM AFS	USW00025623	119 (77 - 172)	5.7 (3.7 - 8.2)	84 (41 - 144)	4.0 (2.0 - 6.9)
CAPE ROMANZOF	USC00501318	115 (74 - 167)	5.5 (3.5 - 8.0)	142 (81 - 215)	6.8 (3.9 - 10.3)
CAPE ROMANZOF AFS	USW00026633	174 (123 - 234)	8.3 (5.9 - 11.2)	184 (114 - 264)	8.8 (5.5 - 12.6)
CAPE SARICHEF LT STN	USC00501325	7 (2 - 18)	0.4 (0.1 - 0.9)	10 (2 - 27)	0.5 (0.1 - 1.3)
CAPE SPENCER	USC00501334	17 (7 - 36)	0.8 (0.3 - 1.7)	21 (6 - 49)	1.0 (0.3 - 2.3)
CAPE ST ELIAS	USC00501321	59 (32 - 97)	2.8 (1.5 - 4.7)	56 (23 - 104)	2.7 (1.1 - 5.0)
CARCROSS	CA002100200	36 (17 - 64)	1.7 (0.8 - 3.1)	35 (13 - 73)	1.7 (0.6 - 3.5)
CARMACKS	CA002100300	26 (11 - 50)	1.2 (0.6 - 2.4)	32 (11 - 67)	1.5 (0.5 - 3.2)
CENTRAL #2	USC00501466	40 (20 - 71)	1.9 (0.9 - 3.4)	36 (13 - 74)	1.7 (0.6 - 3.6)
CHANDALAR LAKE	USC00501492	68 (39 - 110)	3.3 (1.8 - 5.2)	73 (33 - 128)	3.5 (1.6 - 6.1)
CHANDALAR SHELF DOT	USC00501497	153 (105 - 210)	7.3 (5.0 - 10.1)	117 (62 - 185)	5.6 (3.0 - 8.9)

CHENA HOT SPRINGS	USC00501574	78 (46 - 122)	3.7 (2.2 - 5.8)	87 (42 - 148)	4.2 (2.0 - 7.1)
CHENA RIDGE	USC00501557	45 (23 - 78)	2.1 (1.1 - 3.7)	44 (17 - 87)	2.1 (0.8 - 4.2)
CHICKEN	USC00501684	26 (12 - 50)	1.2 (0.6 - 2.4)	28 (10 - 62)	1.4 (0.5 - 3.0)
CHULITNA RVR	USC00501926	188 (135 - 249)	9.0 (6.5 - 11.9)	178 (109 - 256)	8.5 (5.2 - 12.3)
CIRCLE CITY	USC00501977	67 (38 - 108)	3.2 (1.8 - 5.2)	45 (17 - 88)	2.1 (0.8 - 4.2)
CIRCLE HOT SPRINGS	USC00501987	25 (11 - 48)	1.2 (0.5 - 2.3)	30 (10 - 65)	1.5 (0.5 - 3.1)
CLEAR 4 N	USC00502005	79 (46 - 123)	3.8 (2.2 - 5.9)	85 (41 - 145)	4.1 (2.0 - 6.9)
CLEARWATER	USC00502019	51 (27 - 87)	2.5 (1.3 - 4.2)	57 (24 - 107)	2.8 (1.2 - 5.1)
COLD BAY AP	USW00025624	25 (11 - 49)	1.2 (0.5 - 2.3)	33 (12 - 70)	1.6 (0.6 - 3.3)
Coldfoot	USS0050S01S	78 (46 - 122)	3.8 (2.2 - 5.9)	72 (33 - 128)	3.5 (1.6 - 6.1)
COLLEGE 5 NW	USC00502112	48 (25 - 82)	2.3 (1.2 - 3.9)	56 (23 - 104)	2.7 (1.1 - 5.0)
COLLEGE OBSY	USC00502107	55 (30 - 92)	2.6 (1.4 - 4.4)	62 (27 - 114)	3.0 (1.3 - 5.5)
COLVILLE VILLAGE	USC00502126	11 (4 - 26)	0.5 (0.2 - 1.2)	15 (4 - 38)	0.7 (0.2 - 1.8)
Cooper Lake	USS0049L10S	178 (127 - 238)	8.5 (6.1 - 11.4)	129 (71 - 200)	6.2 (3.4 - 9.6)
COOPER LAKE PROJECT	USC00502144	61 (33 - 100)	2.9 (1.6 - 4.8)	67 (30 - 121)	3.2 (1.4 - 5.8)
COOPER LANDING 5 W	USC00502149	70 (39 - 111)	3.3 (1.9 - 5.3)	76 (36 - 133)	3.6 (1.7 - 6.4)
CORDOVA M K SMITH AP	USW00026410	75 (43 - 118)	3.6 (2.1 - 5.7)	84 (40 - 143)	4.0 (1.9 - 6.9)
CORDOVA N	USC00502173	134 (89 - 190)	6.4 (4.3 - 9.1)	138 (78 - 211)	6.6 (3.8 - 10.1)
DAWSON	CA002100400	53 (28 - 89)	2.5 (1.3 - 4.3)	60 (26 - 110)	2.9 (1.2 - 5.3)
DAWSON A	CA002100402	36 (17 - 64)	1.7 (0.8 - 3.1)	43 (16 - 85)	2.0 (0.8 - 4.1)

DEASE LAKE	CA001192340	49 (26 - 84)	2.4 (1.2 - 4.0)	57 (24 - 106)	2.7 (1.2 - 5.1)
DELTA 5 NE	USC00502350	20 (8 - 40)	0.9 (0.4 - 1.9)	21 (6 - 49)	1.0 (0.3 - 2.3)
DELTA 6N	USC00502339	18 (7 - 37)	0.8 (0.3 - 1.8)	19 (6 - 46)	0.9 (0.3 - 2.2)
DELTA JUNCTION 20SE	USC00502352	19 (8 - 38)	0.9 (0.4 - 1.8)	20 (6 - 47)	1.0 (0.3 - 2.3)
DILLINGHAM FAA AP	USC00502457	149 (102 - 207)	7.2 (4.9 - 9.9)	113 (60 - 181)	5.4 (2.9 - 8.7)
DRURY CREEK	CA002100460	33 (15 - 60)	1.6 (0.7 - 2.9)	36 (13 - 75)	1.7 (0.6 - 3.6)
DRY CREEK	USC00502568	33 (16 - 61)	1.6 (0.7 - 2.9)	33 (12 - 69)	1.6 (0.6 - 3.3)
DUTCH HARBOR	USC00502587	56 (30 - 93)	2.7 (1.4 - 4.5)	64 (28 - 117)	3.1 (1.4 - 5.6)
EAGLE	USC00502607	45 (23 - 78)	2.1 (1.1 - 3.7)	52 (21 - 99)	2.5 (1.0 - 4.7)
EAGLE PLAINS	CA002100468	76 (44 - 119)	3.6 (2.1 - 5.7)	84 (40 - 143)	4.0 (1.9 - 6.9)
EAGLE RVR 5 SE	USC00502656	86 (51 - 132)	4.1 (2.5 - 6.3)	92 (45 - 154)	4.4 (2.2 - 7.4)
EAGLE RVR GAKONA CIRCLE	USC00502645	58 (32 - 96)	2.8 (1.5 - 4.6)	63 (28 - 115)	3.0 (1.3 - 5.5)
EAGLE RVR NATURE CTR	USC00502642	61 (34 - 100)	2.9 (1.6 - 4.8)	55 (23 - 103)	2.6 (1.1 - 4.9)
Eagle Summit	USS0045Q05S	32 (15 - 59)	1.5 (0.7 - 2.8)	38 (14 - 78)	1.8 (0.7 - 3.7)
EGVEKINOT	RSM00025378	59 (32 - 98)	2.8 (1.5 - 4.7)	68 (30 - 121)	3.2 (1.5 - 5.8)
EIELSON FLD	USC00502707	62 (34 - 101)	2.9 (1.6 - 4.8)	69 (31 - 123)	3.3 (1.5 - 5.9)
EIELSON FLD	USW00026407	116 (74 - 168)	5.5 (3.6 - 8.0)	77 (36 - 134)	3.7 (1.7 - 6.4)
EKLUTNA LAKE	USC00502725	38 (19 - 68)	1.8 (0.9 - 3.3)	33 (12 - 69)	1.6 (0.6 - 3.3)
EKLUTNA PROJECT	USC00502730	42 (21 - 74)	2.0 (1.0 - 3.5)	49 (20 - 95)	2.4 (1.0 - 4.5)
EKLUTNA WTP	USC00502737	68 (38 - 109)	3.3 (1.8 - 5.2)	61 (27 - 112)	2.9 (1.3 - 5.4)

ELDRED ROCK	USC00502770	9 (3 - 22)	0.4 (0.2 - 1.0)	11 (3 - 30)	0.5 (0.1 - 1.4)
ELFIN COVE	USC00502785	124 (81 - 177)	5.9 (3.9 - 8.5)	91 (45 - 153)	4.4 (2.2 - 7.3)
ELMENDORF AFB	USW00026401	42 (21 - 74)	2.0 (1.0 - 3.5)	44 (17 - 87)	2.1 (0.8 - 4.2)
EMMONAK	USC00502825	122 (79 - 175)	5.8 (3.8 - 8.4)	131 (73 - 203)	6.3 (3.5 - 9.7)
ESTER	USC00502870	38 (18 - 67)	1.8 (0.9 - 3.2)	38 (14 - 78)	1.8 (0.7 - 3.7)
ESTER 5NE	USC00502871	40 (20 - 71)	1.9 (1.0 - 3.4)	42 (16 - 83)	2.0 (0.8 - 4.0)
ESTER DOME	USC00502868	71 (41 - 114)	3.4 (2.0 - 5.4)	65 (29 - 118)	3.1 (1.4 - 5.7)
FAIRBANKS AP #2	USC00502965	41 (20 - 72)	2.0 (1.0 - 3.5)	41 (16 - 83)	2.0 (0.8 - 4.0)
FAIRBANKS INTL AP	USW00026411	60 (33 - 99)	2.9 (1.6 - 4.7)	67 (30 - 121)	3.2 (1.4 - 5.8)
FAIRBANKS MIDTOWN	USC00502970	41 (20 - 72)	2.0 (1.0 - 3.5)	41 (15 - 82)	1.9 (0.7 - 3.9)
FAREWELL FAA AP	USW00026519	73 (42 - 116)	3.5 (2.0 - 5.6)	80 (38 - 138)	3.8 (1.8 - 6.6)
FAREWELL LAKE	USC00503009	37 (18 - 66)	1.7 (0.8 - 3.2)	35 (13 - 73)	1.7 (0.6 - 3.5)
FARO A	CA002100517	29 (13 - 54)	1.4 (0.6 - 2.6)	27 (9 - 59)	1.3 (0.4 - 2.8)
FLAT	USC00503085	108 (68 - 158)	5.1 (3.2 - 7.6)	77 (36 - 134)	3.7 (1.7 - 6.4)
FORT MCPHERSON A	CA002201601	36 (17 - 65)	1.7 (0.8 - 3.1)	42 (16 - 85)	2.0 (0.8 - 4.1)
Fort Yukon	USS0045R01S	23 (10 - 46)	1.1 (0.5 - 2.2)	29 (10 - 62)	1.4 (0.5 - 3.0)
FOX 2SE	USC00503181	43 (22 - 76)	2.1 (1.0 - 3.6)	49 (20 - 94)	2.3 (0.9 - 4.5)
FRASER CAMP	CA00120C036	145 (98 - 202)	7.0 (4.7 - 9.7)	144 (83 - 218)	6.9 (4.0 - 10.4)
FT KNOX MINE	USC00503160	54 (29 - 91)	2.6 (1.4 - 4.3)	57 (24 - 107)	2.8 (1.2 - 5.1)
FT RICHARDSON WTP	USC00503163	41 (20 - 72)	2.0 (1.0 - 3.5)	48 (19 - 94)	2.3 (0.9 - 4.5)

FT YUKON	USW00026413	93 (56 - 140)	4.4 (2.7 - 6.7)	63 (28 - 115)	3.0 (1.3 - 5.5)
FUNTER BAY	USC00503198	38 (19 - 68)	1.8 (0.9 - 3.3)	32 (11 - 69)	1.5 (0.5 - 3.3)
GAKONA 1 N	USC00503205	135 (90 - 190)	6.4 (4.3 - 9.1)	135 (76 - 208)	6.5 (3.6 - 9.9)
GALENA	USC00503212	68 (38 - 109)	3.3 (1.8 - 5.2)	77 (36 - 134)	3.7 (1.7 - 6.4)
GALENA AP	USW00026501	54 (29 - 91)	2.6 (1.4 - 4.3)	56 (24 - 105)	2.7 (1.1 - 5.0)
GAMBELL	USW00026703	162 (113 - 221)	7.8 (5.4 - 10.6)	171 (104 - 249)	8.2 (5.0 - 11.9)
GILMORE CREEK	USC00503275	50 (26 - 85)	2.4 (1.2 - 4.1)	58 (25 - 107)	2.8 (1.2 - 5.1)
GIRDWOOD	USC00503283	133 (88 - 188)	6.4 (4.2 - 9.0)	142 (81 - 216)	6.8 (3.9 - 10.3)
GLACIER BAY	USC00503294	164 (115 - 223)	7.9 (5.5 - 10.7)	125 (68 - 195)	6.0 (3.3 - 9.3)
GLEN ALPS	USC00503299	368 (312 - 429)	17.6 (15.0 - 20.6)	196 (124 - 276)	9.4 (5.9 - 13.2)
GLENNALLEN KCAM	USC00503304	48 (25 - 82)	2.3 (1.2 - 3.9)	54 (23 - 102)	2.6 (1.1 - 4.9)
Gobblers Knob	USS0050R04S	21 (9 - 42)	1.0 (0.4 - 2.0)	24 (8 - 55)	1.2 (0.4 - 2.6)
GRAHAM INLET	CA001203255	47 (24 - 80)	2.2 (1.1 - 3.8)	53 (22 - 101)	2.5 (1.1 - 4.8)
Granite Crk	USS0045O04S	21 (9 - 42)	1.0 (0.4 - 2.0)	26 (9 - 58)	1.2 (0.4 - 2.8)
Grouse Creek Divide	USS0049L14S	182 (131 - 243)	8.7 (6.3 - 11.6)	156 (91 - 231)	7.5 (4.4 - 11.1)
GULKANA AP	USW00026425	59 (32 - 97)	2.8 (1.5 - 4.7)	65 (29 - 118)	3.1 (1.4 - 5.6)
GUSTAVUS	USW00025322	62 (34 - 101)	3.0 (1.6 - 4.8)	68 (30 - 121)	3.2 (1.5 - 5.8)
HAINES #2	USC00503502	189 (137 - 250)	9.1 (6.5 - 12.0)	186 (116 - 265)	8.9 (5.5 - 12.7)
HAINES 40 NW	USC00503504	244 (188 - 308)	11.7 (9.0 - 14.7)	248 (170 - 332)	11.9 (8.1 - 15.9)
HAINES JUNCTION	CA002100630	35 (17 - 64)	1.7 (0.8 - 3.1)	42 (16 - 84)	2.0 (0.8 - 4.0)

HAINES JUNCTION YTG	CA002100631	31 (14 - 58)	1.5 (0.7 - 2.8)	27 (9 - 60)	1.3 (0.4 - 2.9)
HAINES TERMINAL	USC00503500	78 (45 - 122)	3.7 (2.2 - 5.8)	83 (40 - 142)	4.0 (1.9 - 6.8)
HALIBUT COVE	USC00503530	42 (21 - 73)	2.0 (1.0 - 3.5)	47 (19 - 92)	2.3 (0.9 - 4.4)
HAYES RIVER	USC00503573	208 (154 - 271)	10.0 (7.4 - 13.0)	184 (114 - 263)	8.8 (5.5 - 12.6)
HEALY	USC00503585	52 (28 - 88)	2.5 (1.3 - 4.2)	58 (25 - 108)	2.8 (1.2 - 5.2)
HIDDEN FALLS HATCHERY	USC00503605	158 (109 - 216)	7.6 (5.2 - 10.4)	123 (67 - 193)	5.9 (3.2 - 9.2)
HOLLIS	USC00503650	35 (17 - 64)	1.7 (0.8 - 3.1)	32 (11 - 68)	1.5 (0.5 - 3.3)
HOLY CROSS	USC00503655	133 (88 - 188)	6.4 (4.2 - 9.0)	141 (81 - 215)	6.8 (3.9 - 10.3)
HOMER 5 NW	USC00503670	86 (51 - 131)	4.1 (2.4 - 6.3)	65 (29 - 118)	3.1 (1.4 - 5.7)
HOMER 8 NW	USC00503672	139 (93 - 195)	6.7 (4.5 - 9.3)	107 (56 - 173)	5.1 (2.7 - 8.3)
HOMER 9 E	USC00503682	45 (23 - 78)	2.2 (1.1 - 3.7)	43 (17 - 86)	2.1 (0.8 - 4.1)
HOMER AP	USW00025507	40 (20 - 70)	1.9 (0.9 - 3.4)	46 (18 - 90)	2.2 (0.9 - 4.3)
HOONAH	USC00503695	117 (76 - 170)	5.6 (3.6 - 8.1)	93 (46 - 155)	4.4 (2.2 - 7.4)
HOPE	USC00503720	64 (36 - 104)	3.1 (1.7 - 5.0)	69 (31 - 124)	3.3 (1.5 - 5.9)
HOUSTON	USC00503731	159 (110 - 218)	7.6 (5.3 - 10.4)	168 (101 - 245)	8.0 (4.8 - 11.7)
HUGHES	USC00503765	104 (65 - 155)	5.0 (3.1 - 7.4)	109 (57 - 175)	5.2 (2.7 - 8.4)
HYDER	USC00503821	236 (180 - 300)	11.3 (8.6 - 14.4)	176 (108 - 255)	8.4 (5.2 - 12.2)
ILIAMNA AP	USW00025506	68 (38 - 109)	3.2 (1.8 - 5.2)	73 (33 - 129)	3.5 (1.6 - 6.2)
Independence Mine	USS0049M26S	160 (111 - 218)	7.6 (5.3 - 10.4)	187 (116 - 266)	8.9 (5.6 - 12.8)
INDIAN MTN	USC00503910	49 (26 - 84)	2.4 (1.2 - 4.0)	56 (23 - 105)	2.7 (1.1 - 5.0)

INDIAN MTN AFS	USW00026535	86 (51 - 132)	4.1 (2.5 - 6.3)	92 (46 - 154)	4.4 (2.2 - 7.4)
INTRICATE BAY	USC00503933	54 (29 - 91)	2.6 (1.4 - 4.3)	62 (27 - 113)	2.9 (1.3 - 5.4)
INUVIK A	CA002202570	45 (23 - 78)	2.2 (1.1 - 3.7)	46 (18 - 90)	2.2 (0.9 - 4.3)
INUVIK CLIMATE	CA002202578	25 (11 - 49)	1.2 (0.5 - 2.3)	30 (10 - 65)	1.4 (0.5 - 3.1)
INUVIK UA	CA002202582	48 (25 - 82)	2.3 (1.2 - 3.9)	56 (24 - 105)	2.7 (1.1 - 5.0)
IVVAVIK NAT. PARK	CA002100660	15 (6 - 33)	0.7 (0.3 - 1.6)	12 (3 - 32)	0.6 (0.1 - 1.5)
Johnsons Camp	USS0064P01S	60 (33 - 99)	2.9 (1.6 - 4.7)	47 (19 - 92)	2.3 (0.9 - 4.4)
JOHNSONS CROSSING	CA002100670	35 (17 - 64)	1.7 (0.8 - 3.1)	40 (15 - 80)	1.9 (0.7 - 3.9)
JUNEAU 9 NW	USC00504110	75 (43 - 118)	3.6 (2.1 - 5.7)	77 (36 - 135)	3.7 (1.7 - 6.5)
JUNEAU DWTN	USC00504094	45 (23 - 78)	2.2 (1.1 - 3.8)	43 (17 - 85)	2.0 (0.8 - 4.1)
JUNEAU FORECAST OFFICE	USC00504103	49 (26 - 84)	2.4 (1.2 - 4.0)	55 (23 - 103)	2.6 (1.1 - 4.9)
JUNEAU INTL AP	USW00025309	56 (30 - 93)	2.7 (1.4 - 4.4)	51 (21 - 97)	2.4 (1.0 - 4.7)
JUNEAU LENA PT	USC00504107	71 (40 - 113)	3.4 (1.9 - 5.4)	73 (33 - 129)	3.5 (1.6 - 6.2)
JUNEAU MILE 17	USC00504109	73 (42 - 116)	3.5 (2.0 - 5.6)	77 (36 - 134)	3.7 (1.7 - 6.4)
JUNEAU OUTER PT	USC00504117	44 (23 - 77)	2.1 (1.1 - 3.7)	48 (19 - 93)	2.3 (0.9 - 4.5)
Kachemak Creek	USS0050K07S	338 (281 - 401)	16.2 (13.5 - 19.2)	172 (105 - 250)	8.2 (5.0 - 12.0)
KAKE	USC00504155	88 (53 - 134)	4.2 (2.5 - 6.4)	77 (36 - 135)	3.7 (1.7 - 6.4)
Kantishna	USS0050O01S	40 (20 - 71)	1.9 (0.9 - 3.4)	37 (14 - 76)	1.8 (0.7 - 3.6)
KASILOF 3 NW	USC00504425	70 (40 - 111)	3.3 (1.9 - 5.3)	58 (25 - 108)	2.8 (1.2 - 5.2)
KASITSNA BAY	USC00504429	184 (132 - 245)	8.8 (6.3 - 11.7)	101 (52 - 166)	4.8 (2.5 - 7.9)

KENAI 9N	USC00504550	106 (66 - 156)	5.1 (3.2 - 7.5)	94 (47 - 157)	4.5 (2.2 - 7.5)
Kenai Moose Pens	USS0050L02S	44 (22 - 76)	2.1 (1.1 - 3.6)	49 (20 - 94)	2.3 (0.9 - 4.5)
KENAI MUNI AP	USW00026523	59 (32 - 98)	2.8 (1.5 - 4.7)	48 (19 - 93)	2.3 (0.9 - 4.4)
KENNY LAKE 7SE	USC00504567	30 (14 - 57)	1.5 (0.7 - 2.7)	31 (11 - 66)	1.5 (0.5 - 3.2)
KETCHIKAN CARLANNA CK	USC00504600	209 (155 - 272)	10.0 (7.4 - 13.0)	165 (99 - 242)	7.9 (4.7 - 11.6)
KETCHIKAN INTL AP	USW00025325	41 (20 - 72)	2.0 (1.0 - 3.4)	48 (19 - 93)	2.3 (0.9 - 4.5)
KEYSTONE RIDGE	USC00504621	61 (34 - 100)	2.9 (1.6 - 4.8)	60 (26 - 110)	2.9 (1.2 - 5.3)
KING SALMON	USW00025503	15 (6 - 32)	0.7 (0.3 - 1.5)	19 (5 - 45)	0.9 (0.3 - 2.1)
KITOI BAY	USC00504812	35 (17 - 64)	1.7 (0.8 - 3.1)	41 (16 - 83)	2.0 (0.8 - 4.0)
KLONDIKE	CA002100679	45 (23 - 78)	2.2 (1.1 - 3.7)	53 (22 - 100)	2.5 (1.0 - 4.8)
KOBE HILL	USC00504971	64 (35 - 103)	3.0 (1.7 - 4.9)	59 (25 - 109)	2.8 (1.2 - 5.2)
KOBUK	USC00504964	131 (87 - 186)	6.3 (4.1 - 8.9)	140 (80 - 213)	6.7 (3.8 - 10.2)
KODIAK AP	USW00025501	27 (12 - 52)	1.3 (0.6 - 2.5)	33 (12 - 70)	1.6 (0.6 - 3.4)
KOMAKUK BEACH A	CA002100685	24 (11 - 48)	1.2 (0.5 - 2.3)	28 (10 - 62)	1.4 (0.5 - 3.0)
KOTZEBUE 25 N	USC00505051	61 (34 - 101)	2.9 (1.6 - 4.8)	67 (30 - 120)	3.2 (1.4 - 5.8)
KOTZEBUE RALPH WEIN AP	USW00026616	87 (52 - 133)	4.2 (2.5 - 6.4)	96 (48 - 159)	4.6 (2.3 - 7.6)
KUPARUK	USC00505136	24 (11 - 47)	1.2 (0.5 - 2.2)	24 (8 - 55)	1.2 (0.4 - 2.6)
LADD AAB	USW00026403	74 (43 - 117)	3.6 (2.1 - 5.6)	56 (23 - 104)	2.7 (1.1 - 5.0)
LAKE SUSITNA	USC00505397	27 (12 - 51)	1.3 (0.6 - 2.4)	28 (9 - 62)	1.3 (0.5 - 2.9)
LAZY MTN	USC00505464	83 (49 - 128)	4.0 (2.3 - 6.1)	68 (31 - 122)	3.3 (1.5 - 5.8)

LINGER LONGER	USC00505506	137 (91 - 192)	6.5 (4.4 - 9.2)	146 (84 - 220)	7.0 (4.0 - 10.5)
LITTLE PORT WALTER	USC00505519	203 (149 - 265)	9.7 (7.1 - 12.7)	210 (136 - 291)	10.0 (6.5 - 13.9)
Long Lake	USS0033J01S	540 (504 - 586)	25.9 (24.1 - 28.1)	454 (378 - 529)	21.8 (18.1 - 25.3)
MACMILLAN PASS	CA002100693	84 (50 - 129)	4.0 (2.4 - 6.2)	85 (41 - 145)	4.1 (2.0 - 6.9)
MAIN BAY	USC00505604	602 (577 - 641)	28.8 (27.6 - 30.7)	326 (244 - 410)	15.6 (11.7 - 19.6)
MANKOMEN LAKE	USC00505607	126 (83 - 180)	6.1 (4.0 - 8.6)	117 (63 - 185)	5.6 (3.0 - 8.9)
MANLEY HOT SPRINGS	USC00505644	110 (69 - 161)	5.3 (3.3 - 7.7)	63 (28 - 115)	3.0 (1.3 - 5.5)
MARGARET LAKE	CA002100697	63 (35 - 103)	3.0 (1.7 - 4.9)	25 (8 - 57)	1.2 (0.4 - 2.7)
MATANUSKA EXP FARM	USC00505733	26 (12 - 50)	1.3 (0.6 - 2.4)	31 (11 - 67)	1.5 (0.5 - 3.2)
MAYO A	CA002100700	48 (25 - 82)	2.3 (1.2 - 3.9)	48 (19 - 93)	2.3 (0.9 - 4.4)
MCCARTHY 3 SW	USC00505757	42 (21 - 74)	2.0 (1.0 - 3.5)	49 (20 - 94)	2.3 (0.9 - 4.5)
MCGRATH AP	USW00026510	75 (43 - 118)	3.6 (2.1 - 5.6)	84 (40 - 143)	4.0 (1.9 - 6.9)
MCKINLEY PARK	USC00505778	72 (41 - 114)	3.5 (2.0 - 5.5)	80 (38 - 138)	3.8 (1.8 - 6.6)
Mcneil Canyon	USS0051K14S	135 (90 - 190)	6.5 (4.3 - 9.1)	97 (49 - 161)	4.7 (2.4 - 7.7)
MCQUESTEN	CA002100719	26 (12 - 51)	1.3 (0.6 - 2.4)	32 (11 - 68)	1.5 (0.5 - 3.2)
Middle Fork Bradley	USS0050K05S	238 (182 - 302)	11.4 (8.7 - 14.4)	196 (124 - 277)	9.4 (6.0 - 13.3)
MILE 42 STEESE	USC00505880	52 (28 - 88)	2.5 (1.3 - 4.2)	58 (25 - 108)	2.8 (1.2 - 5.2)
MINCHUMINA	USC00505881	44 (22 - 77)	2.1 (1.1 - 3.7)	51 (21 - 97)	2.4 (1.0 - 4.7)
MIRROR LAKE SCOUT CAMP	USC00505883	47 (24 - 80)	2.2 (1.1 - 3.9)	48 (19 - 93)	2.3 (0.9 - 4.5)
MOOSE PASS 3 NW	USC00505894	152 (104 - 210)	7.3 (5.0 - 10.0)	92 (46 - 154)	4.4 (2.2 - 7.4)

Moraine	USS0048M04S	134 (89 - 189)	6.4 (4.3 - 9.1)	80 (38 - 139)	3.8 (1.8 - 6.6)
MOSES POINT FAA AP	USW00026620	110 (70 - 162)	5.3 (3.4 - 7.7)	116 (62 - 184)	5.5 (3.0 - 8.8)
Mt. Eyak	USS0045L01S	466 (419 - 520)	22.3 (20.1 - 24.9)	291 (210 - 376)	14.0 (10.0 - 18.0)
MYS SHMIDTA	RSM00025173	83 (49 - 128)	4.0 (2.3 - 6.1)	92 (45 - 154)	4.4 (2.2 - 7.4)
MYS UELEN	RSM00025399	79 (46 - 124)	3.8 (2.2 - 5.9)	70 (32 - 125)	3.4 (1.5 - 6.0)
N POLE	USC00506581	52 (27 - 88)	2.5 (1.3 - 4.2)	64 (28 - 116)	3.1 (1.3 - 5.6)
NABESNA	USC00506147	59 (32 - 97)	2.8 (1.5 - 4.7)	67 (30 - 120)	3.2 (1.4 - 5.7)
NENANA MUNI AP	USW00026435	123 (80 - 176)	5.9 (3.8 - 8.4)	100 (51 - 165)	4.8 (2.5 - 7.9)
NOATAK	USC00506463	64 (36 - 104)	3.1 (1.7 - 5.0)	71 (32 - 126)	3.4 (1.5 - 6.0)
NOME MUNI AP	USW00026617	91 (55 - 138)	4.4 (2.6 - 6.6)	100 (51 - 165)	4.8 (2.5 - 7.9)
NORTHEAST CAPE	USW00026632	72 (41 - 114)	3.4 (2.0 - 5.5)	78 (37 - 135)	3.7 (1.7 - 6.5)
NORTHWAY AP	USW00026412	34 (16 - 62)	1.6 (0.8 - 3.0)	42 (16 - 84)	2.0 (0.8 - 4.0)
Nuka Glacier	USS0050K06S	513 (472 - 562)	24.6 (22.6 - 26.9)	355 (272 - 437)	17.0 (13.0 - 20.9)
NUNIVAK	USC00506727	82 (49 - 127)	3.9 (2.3 - 6.1)	81 (39 - 140)	3.9 (1.9 - 6.7)
NYAC	USC00506760	84 (50 - 130)	4.0 (2.4 - 6.2)	93 (47 - 156)	4.5 (2.2 - 7.5)
OGILVIE RIVER	CA002100794	46 (23 - 79)	2.2 (1.1 - 3.8)	56 (24 - 105)	2.7 (1.1 - 5.0)
OLD CROW A	CA002100800	39 (19 - 70)	1.9 (0.9 - 3.3)	44 (17 - 88)	2.1 (0.8 - 4.2)
OLD EDGERTON	USC00506777	33 (16 - 61)	1.6 (0.8 - 2.9)	39 (14 - 79)	1.8 (0.7 - 3.8)
OSTROV VRANGELJA	RSM00021982	15 (6 - 33)	0.7 (0.3 - 1.6)	20 (6 - 47)	0.9 (0.3 - 2.2)
PALMER 1 N	USC00506871	21 (9 - 43)	1.0 (0.4 - 2.0)	27 (9 - 59)	1.3 (0.4 - 2.8)

PALMER JOB CORPS	USC00506870	33 (15 - 60)	1.6 (0.7 - 2.9)	38 (14 - 77)	1.8 (0.7 - 3.7)
Pargon Creek	USS0063P02S	51 (26 - 86)	2.4 (1.3 - 4.1)	43 (17 - 86)	2.1 (0.8 - 4.1)
PAXSON	USC00507097	78 (45 - 122)	3.7 (2.2 - 5.8)	85 (41 - 145)	4.1 (2.0 - 7.0)
PAXSON RIVER	USC00507105	102 (64 - 152)	4.9 (3.1 - 7.3)	87 (43 - 148)	4.2 (2.0 - 7.1)
PELICAN	USC00507141	161 (112 - 220)	7.7 (5.4 - 10.5)	170 (103 - 247)	8.1 (4.9 - 11.8)
PELLY RANCH	CA002100880	19 (8 - 39)	0.9 (0.4 - 1.9)	22 (7 - 51)	1.1 (0.3 - 2.5)
PETERSBURG 1	USW00025329	124 (81 - 178)	6.0 (3.9 - 8.5)	134 (75 - 206)	6.4 (3.6 - 9.8)
PLANT MATERIALS CTR	USC00507352	30 (14 - 56)	1.4 (0.7 - 2.7)	30 (10 - 65)	1.4 (0.5 - 3.1)
PLATINUM	USC00507365	20 (8 - 40)	1.0 (0.4 - 1.9)	24 (8 - 54)	1.1 (0.4 - 2.6)
POINT MACKENZIE	USC00507444	171 (121 - 231)	8.2 (5.8 - 11.0)	39 (15 - 80)	1.9 (0.7 - 3.8)
Point Mackenzie	USS0050M03S	40 (20 - 71)	1.9 (0.9 - 3.4)	45 (18 - 89)	2.2 (0.9 - 4.3)
POINT RETREAT LT STN	USC00507451	63 (35 - 102)	3.0 (1.7 - 4.9)	54 (23 - 102)	2.6 (1.1 - 4.9)
PORT ALCAN	USC00507513	32 (15 - 60)	1.5 (0.7 - 2.9)	39 (14 - 79)	1.9 (0.7 - 3.8)
PORT ALEXANDER	USC00507557	67 (38 - 108)	3.2 (1.8 - 5.2)	76 (36 - 133)	3.7 (1.7 - 6.4)
PORT ALSWORTH	USC00507570	47 (24 - 81)	2.3 (1.2 - 3.9)	54 (22 - 102)	2.6 (1.1 - 4.9)
PORT CLARENCE	USC00507669	104 (65 - 154)	5.0 (3.1 - 7.4)	117 (63 - 186)	5.6 (3.0 - 8.9)
Port Graham	USS0051K15S	148 (101 - 205)	7.1 (4.8 - 9.8)	107 (55 - 173)	5.1 (2.7 - 8.3)
PORT HEIDEN	USW00025508	32 (15 - 59)	1.5 (0.7 - 2.8)	38 (14 - 77)	1.8 (0.7 - 3.7)
PORT SAN JUAN	USC00507738	146 (99 - 203)	7.0 (4.7 - 9.7)	117 (62 - 185)	5.6 (3.0 - 8.9)
PORTAGE 1 S	USC00507494	176 (125 - 236)	8.4 (6.0 - 11.3)	167 (100 - 244)	8.0 (4.8 - 11.7)

PORTER CREEK WAHL	CA002100907	25 (11 - 48)	1.2 (0.5 - 2.3)	29 (10 - 64)	1.4 (0.5 - 3.1)
PRINCE RUPERT A	CA001066481	22 (9 - 43)	1.0 (0.4 - 2.1)	27 (9 - 60)	1.3 (0.4 - 2.9)
PRINCE RUPERT MONT CIRC	CA001066488	18 (7 - 36)	0.8 (0.3 - 1.7)	22 (7 - 51)	1.1 (0.3 - 2.4)
PRINCE RUPERT SHAWATLANS	CA001066493	24 (10 - 47)	1.1 (0.5 - 2.2)	28 (10 - 62)	1.3 (0.5 - 3.0)
PRUDHOE BAY	USC00507780	8 (3 - 20)	0.4 (0.1 - 1.0)	9 (2 - 26)	0.4 (0.1 - 1.2)
PUNTILLA	USC00507783	157 (108 - 215)	7.5 (5.2 - 10.3)	165 (99 - 242)	7.9 (4.7 - 11.6)
Rocky Point	USS0063P01S	74 (42 - 117)	3.5 (2.0 - 5.6)	54 (23 - 102)	2.6 (1.1 - 4.9)
ROSS RIVER A	CA002100940	43 (22 - 76)	2.1 (1.0 - 3.6)	35 (13 - 73)	1.7 (0.6 - 3.5)
SALCHA	USC00508140	45 (23 - 78)	2.1 (1.1 - 3.7)	51 (21 - 97)	2.4 (1.0 - 4.6)
SANDSPIT A	CA001057050	46 (24 - 80)	2.2 (1.1 - 3.8)	54 (23 - 102)	2.6 (1.1 - 4.9)
SEWARD 19N	USC00508377	101 (63 - 151)	4.8 (3.0 - 7.2)	88 (43 - 149)	4.2 (2.1 - 7.1)
SEWARD 8 NW	USC00508375	264 (207 - 328)	12.6 (9.9 - 15.7)	181 (112 - 260)	8.7 (5.4 - 12.5)
SEWARD AP	USW00026438	51 (27 - 86)	2.4 (1.3 - 4.1)	57 (24 - 106)	2.7 (1.1 - 5.1)
SHEEP MTN CAA AP	USW00026439	60 (33 - 99)	2.9 (1.6 - 4.7)	53 (22 - 100)	2.5 (1.0 - 4.8)
SHINGLE POINT A	CA002100950	43 (22 - 76)	2.1 (1.0 - 3.6)	32 (11 - 68)	1.5 (0.5 - 3.3)
SILVER LAKE	USC00508470	73 (42 - 115)	3.5 (2.0 - 5.5)	59 (25 - 109)	2.8 (1.2 - 5.2)
SITKA AIRPORT	USW00025333	40 (20 - 71)	1.9 (1.0 - 3.4)	32 (11 - 67)	1.5 (0.5 - 3.2)
SITKA MAGNETIC OBSY	USC00508503	43 (22 - 75)	2.1 (1.0 - 3.6)	41 (15 - 82)	1.9 (0.7 - 3.9)
SKAGWAY	USC00508525	19 (8 - 40)	0.9 (0.4 - 1.9)	23 (7 - 52)	1.1 (0.3 - 2.5)
SKWENTNA	USW00026514	134 (89 - 189)	6.4 (4.2 - 9.0)	127 (70 - 198)	6.1 (3.4 - 9.5)

SLANA	USC00508547	60 (33 - 98)	2.9 (1.6 - 4.7)	66 (29 - 119)	3.1 (1.4 - 5.7)
SNAG A	CA002101000	38 (19 - 68)	1.8 (0.9 - 3.3)	44 (17 - 86)	2.1 (0.8 - 4.1)
SNETTISHAM PWR PLT	USC00508584	407 (354 - 466)	19.5 (17.0 - 22.3)	368 (286 - 450)	17.6 (13.7 - 21.5)
SNOWSHOE LAKE	USC00508594	47 (24 - 81)	2.3 (1.2 - 3.9)	54 (23 - 102)	2.6 (1.1 - 4.9)
SOLDOTNA 5SSW	USC00508615	53 (28 - 89)	2.5 (1.3 - 4.2)	57 (24 - 107)	2.8 (1.2 - 5.1)
SOURDOUGH 1 N	USC00508625	100 (62 - 149)	4.8 (3.0 - 7.1)	86 (42 - 146)	4.1 (2.0 - 7.0)
SPARREVOHN	USC00508666	91 (55 - 138)	4.3 (2.6 - 6.6)	77 (36 - 134)	3.7 (1.7 - 6.4)
SPARREVOHN MTN AFS	USW00026534	104 (65 - 154)	5.0 (3.1 - 7.4)	113 (60 - 181)	5.4 (2.9 - 8.6)
ST MARYS	USC00508105	91 (55 - 138)	4.4 (2.6 - 6.6)	62 (27 - 114)	3.0 (1.3 - 5.4)
ST PAUL ISLAND AP	USW00025713	46 (24 - 79)	2.2 (1.1 - 3.8)	54 (22 - 101)	2.6 (1.1 - 4.9)
STEWART CROSSING	CA002101030	40 (20 - 71)	1.9 (1.0 - 3.4)	47 (19 - 92)	2.3 (0.9 - 4.4)
Summit Creek	USS0049L19S	107 (67 - 158)	5.1 (3.2 - 7.5)	91 (45 - 153)	4.4 (2.2 - 7.3)
SUMMIT WSO AP	USW00026414	173 (122 - 233)	8.3 (5.8 - 11.1)	139 (79 - 212)	6.7 (3.8 - 10.1)
Susitna Valley High	USS0050N07S	68 (38 - 109)	3.2 (1.8 - 5.2)	76 (36 - 134)	3.7 (1.7 - 6.4)
SUTTON 1 W	USC00508915	102 (64 - 152)	4.9 (3.0 - 7.3)	115 (62 - 184)	5.5 (2.9 - 8.8)
SWIFT RIVER	CA002101081	38 (19 - 69)	1.8 (0.9 - 3.3)	46 (18 - 90)	2.2 (0.9 - 4.3)
TAHNETA PASS	USC00508945	67 (38 - 108)	3.2 (1.8 - 5.2)	70 (32 - 124)	3.3 (1.5 - 6.0)
TAKHINI RIVER RANCH	CA002101095	16 (6 - 33)	0.8 (0.3 - 1.6)	18 (5 - 44)	0.9 (0.3 - 2.1)
TALKEETNA AP	USW00026528	150 (103 - 208)	7.2 (4.9 - 10.0)	157 (92 - 233)	7.5 (4.4 - 11.1)
TANACROSS	USW00026440	42 (21 - 73)	2.0 (1.0 - 3.5)	43 (17 - 86)	2.1 (0.8 - 4.1)

TANANA CALHOUN MEM AP	USW00026529	107 (67 - 157)	5.1 (3.2 - 7.5)	87 (42 - 148)	4.2 (2.0 - 7.1)
TATALINA	USW00026536	83 (49 - 129)	4.0 (2.4 - 6.2)	78 (36 - 135)	3.7 (1.7 - 6.5)
TELEGRAPH CREEK	CA001208041	67 (38 - 108)	3.2 (1.8 - 5.2)	54 (23 - 103)	2.6 (1.1 - 4.9)
TESLIN (AUT)	CA002101102	40 (20 - 71)	1.9 (1.0 - 3.4)	37 (14 - 76)	1.8 (0.7 - 3.7)
TESLIN A	CA002101100	47 (24 - 81)	2.3 (1.2 - 3.9)	55 (23 - 104)	2.6 (1.1 - 5.0)
TIN CITY	USW00026634	92 (56 - 139)	4.4 (2.7 - 6.7)	101 (52 - 166)	4.8 (2.5 - 7.9)
TODAGIN RANCH	CA001208202	91 (55 - 139)	4.4 (2.6 - 6.6)	60 (26 - 111)	2.9 (1.2 - 5.3)
TOK SCHOOL	USC00509313	34 (16 - 62)	1.6 (0.8 - 3.0)	33 (12 - 70)	1.6 (0.6 - 3.3)
Tokositna Valley	USS0050N05S	138 (93 - 194)	6.6 (4.4 - 9.3)	143 (81 - 216)	6.8 (3.9 - 10.3)
TONSINA	USC00509385	47 (24 - 81)	2.3 (1.2 - 3.9)	58 (25 - 107)	2.8 (1.2 - 5.1)
TRAPPER CREEK 7SW	USC00509398	96 (59 - 144)	4.6 (2.8 - 6.9)	103 (53 - 169)	5.0 (2.6 - 8.1)
TRI NAL ACRES	USC00509421	53 (28 - 89)	2.5 (1.3 - 4.2)	44 (17 - 87)	2.1 (0.8 - 4.2)
TRIMS CAMP	USC00509410	430 (379 - 487)	20.6 (18.1 - 23.3)	394 (312 - 474)	18.9 (15.0 - 22.7)
TUKTOYAKTUK	CA002203910	24 (10 - 46)	1.1 (0.5 - 2.2)	31 (11 - 66)	1.5 (0.5 - 3.1)
TUKTOYAKTUK A	CA002203912	30 (14 - 56)	1.4 (0.7 - 2.7)	31 (11 - 67)	1.5 (0.5 - 3.2)
Turnagain Pass	USS0049L13S	393 (340 - 453)	18.8 (16.3 - 21.7)	375 (293 - 456)	17.9 (14.0 - 21.8)
TUTKA BAY LAGOON	USC00509460	139 (93 - 194)	6.6 (4.4 - 9.3)	148 (85 - 222)	7.1 (4.1 - 10.6)
TWO RIVERS	USC00509489	50 (26 - 85)	2.4 (1.2 - 4.0)	58 (24 - 107)	2.8 (1.2 - 5.1)
UMIAT	USW00026508	29 (13 - 55)	1.4 (0.6 - 2.6)	35 (13 - 73)	1.7 (0.6 - 3.5)
UNALAKLEET FLD	USW00026627	32 (15 - 60)	1.6 (0.7 - 2.9)	39 (15 - 79)	1.9 (0.7 - 3.8)

UNIVERSITY EXP STN	USC00509641	54 (29 - 91)	2.6 (1.4 - 4.4)	61 (27 - 113)	2.9 (1.3 - 5.4)
UNUK RIVER ESKAY CREEK	CA001078L3D	507 (466 - 557)	24.3 (22.3 - 26.7)	506 (435 - 575)	24.2 (20.8 - 27.5)
Upper Chena	USS0044Q07S	109 (69 - 160)	5.2 (3.3 - 7.6)	75 (35 - 132)	3.6 (1.7 - 6.3)
Upper Nome Creek	USS0046Q07S	63 (35 - 103)	3.0 (1.7 - 4.9)	59 (25 - 109)	2.8 (1.2 - 5.2)
Upper Tsaina River	USS0045M07S	161 (112 - 220)	7.7 (5.4 - 10.5)	170 (102 - 247)	8.1 (4.9 - 11.8)
VALDEZ AIRPORT	USC00509685	1,137 (1,271 - 1,073)	54.4 (60.9 - 51.4)	1,022 (1,103 - 990)	48.9 (52.8 - 47.4)
VALDEZ WSO	USW00026442	164 (115 - 223)	7.9 (5.5 - 10.7)	160 (94 - 236)	7.6 (4.5 - 11.3)
WAINWRIGHT AP	USW00027503	10 (4 - 24)	0.5 (0.2 - 1.1)	14 (4 - 35)	0.7 (0.2 - 1.7)
WALES	USW00026618	60 (33 - 98)	2.9 (1.6 - 4.7)	48 (19 - 94)	2.3 (0.9 - 4.5)
WALLY NOERENBERG HATCHERY	USC00509747	224 (169 - 288)	10.7 (8.1 - 13.8)	207 (134 - 289)	9.9 (6.4 - 13.8)
WASILLA 2 NE	USC00509765	33 (16 - 60)	1.6 (0.7 - 2.9)	37 (14 - 76)	1.8 (0.7 - 3.7)
WASILLA 3 S	USC00509759	52 (28 - 88)	2.5 (1.3 - 4.2)	47 (19 - 91)	2.2 (0.9 - 4.4)
WHITEHORSE A	CA002101300	24 (11 - 47)	1.2 (0.5 - 2.2)	30 (10 - 64)	1.4 (0.5 - 3.1)
WHITEHORSE RIVERDALE	CA002101400	25 (11 - 48)	1.2 (0.5 - 2.3)	30 (10 - 65)	1.4 (0.5 - 3.1)
WHITES CROSSING	USC00509790	129 (85 - 183)	6.2 (4.1 - 8.8)	114 (61 - 182)	5.5 (2.9 - 8.7)
WHITESTONE FARMS	USC00509793	20 (8 - 41)	1.0 (0.4 - 1.9)	20 (6 - 47)	0.9 (0.3 - 2.2)
WHITTIER	USC00509829	415 (363 - 473)	19.9 (17.4 - 22.7)	317 (234 - 400)	15.2 (11.2 - 19.2)
WILLOW HWY CAMP	USC00509864	110 (70 - 162)	5.3 (3.4 - 7.7)	77 (36 - 135)	3.7 (1.7 - 6.4)
WILLOW WEST	USC00509861	127 (84 - 182)	6.1 (4.0 - 8.7)	136 (76 - 208)	6.5 (3.7 - 10.0)
WISEMAN	USC00509869	107 (68 - 158)	5.1 (3.2 - 7.6)	68 (30 - 122)	3.2 (1.5 - 5.8)

WOODSMOKE	USC00509891	39 (19 - 70)	1.9 (0.9 - 3.3)	45 (17 - 88)	2.1 (0.8 - 4.2)
WRANGELL AP	USC00509919	35 (17 - 63)	1.7 (0.8 - 3.0)	40 (15 - 81)	1.9 (0.7 - 3.9)
YAKATAGA AP	USW00026445	82 (48 - 127)	3.9 (2.3 - 6.1)	87 (42 - 148)	4.2 (2.0 - 7.1)
YAKUTAT STATE AP	USW00025339	178 (126 - 238)	8.5 (6.1 - 11.4)	186 (115 - 265)	8.9 (5.5 - 12.7)

Appendix 3 – Distribution Assignment for WESD and SNWD Stations

Table 4 – Assigned distribution for cleaned seasonal maximum values for each WESD station.

WESD Station Name	Station ID	Assigned Distribution
Anchor River Divide	USS0051K05S	log-logistic
Anchorage Hillside	USS0049M22S	log-logistic
ANCHORAGE INTL AP	USW00026451	inverse Gaussian
BARROW POST ROGERS AP	USW00027502	inverse Gaussian
BARTER ISLAND WSO AP	USW00027401	inverse Gaussian
BETHEL AP	USW00026615	inverse Gaussian
Bettles Field	USS0051R01S	gamma
COLD BAY AP	USW00025624	lognormal
Coldfoot	USS0050S01S	Nakagami
Cooper Lake	USS0049L10S	gamma
CORDOVA M K SMITH AP	USW00026410	lognormal
Fairbanks F.O.	USS0047P03S	log-logistic
FAIRBANKS INTL AP	USW00026411	lognormal
Grandview	USS0049L09S	Nakagami
Granite Crk	USS0045O04S	lognormal
Grouse Creek Divide	USS0049L14S	normal
HOMER AP	USW00025507	lognormal
Independence Mine	USS0049M26S	log-logistic
Indian Pass	USS0049M08S	Nakagami
JUNEAU INTL AP	USW00025309	log-logistic
Kenai Moose Pens	USS0050L02S	Nakagami
KING SALMON	USW00025503	lognormal
KODIAK AP	USW00025501	inverse Gaussian
KOTZEBUE RALPH WEIN AP	USW00026616	log-logistic
Little Chena Ridge	USS0046Q02S	gamma
Long Lake	USS0033J01S	normal
MCGRATH AP	USW00026510	gamma
Mcneil Canyon	USS0051K14S	gamma
Monument Creek	USS0045Q02S	lognormal
Moraine	USS0048M04S	Nakagami
Mt. Alyeska	USS0049L01S	gamma
Mt. Eyak	USS0045L01S	inverse Gaussian
Mt. Ryan	USS0046Q01S	gamma
Munson Ridge	USS0046P01S	log-logistic
NOME MUNI AP	USW00026617	log-logistic
Point Mackenzie	USS0050M03S	inverse Gaussian
Port Graham	USS0051K15S	Nakagami

ST PAUL ISLAND AP	USW00025713	inverse Gaussian
Summit Creek	USS0049L19S	gamma
Susitna Valley High	USS0050N07S	log-logistic
TALKEETNA AP	USW00026528	inverse Gaussian
Teuchet Creek	USS0045P03S	gamma
Tokositna Valley	USS0050N05S	inverse Gaussian
Turnagain Pass	USS0049L13S	inverse Gaussian
UNALAKLEET FLD	USW00026627	inverse Gaussian
Upper Chena	USS0044Q07S	gamma
Upper Tsaina River	USS0045M07S	lognormal
VALDEZ WSO	USW00026442	lognormal
YAKUTAT STATE AP	USW00025339	inverse Gaussian

Table 5 - Assigned distribution for cleaned seasonal maximum values for each SNWD station

SNWD Station Name	Station ID	Assigned Distribution
ADAK	USW00025704	inverse Gaussian
AISHIHIK A	CA002100100	normal
AKLAVIK A	CA002200100	lognormal
ALEKNAGIK	USC00500201	inverse Gaussian
ALLAKAKET	USC00500230	Nakagami
ALYESKA	USC00500243	Nakagami
AMBER LAKE	USC00500247	inverse Gaussian
AMBLER WEST	USC00500260	inverse Gaussian
Anchor River Divide	USS0051K05S	normal
ANCHORAGE FORECAST OFFICE	USC00500275	inverse Gaussian
Anchorage Hillside	USS0049M22S	logistic
ANCHORAGE INTL AP	USW00026451	gamma
ANCHORAGE MERRILL FLD	USW00026409	Rayleigh
ANCHORAGE RABBIT CREEK #2	USC00500284	inverse Gaussian
ANCHORAGE UPPER DEARMOUN	USC00500281	Rayleigh
ANDERSON LAKE	USC00500302	lognormal
ANGOON PWR	USC00500310	Rayleigh
ANIAK AP	USW00026516	lognormal
ANNETTE ISLAND AP	USW00025308	lognormal
ANNEX CREEK	USC00500363	log-logistic
ARCTIC VILLAGE	USC00500396	Weibull
ATLIN	CA001200560	Birnbaum-Saunders
AUKE BAY	USC00500464	Rayleigh

AURORA	USC00500490	gamma
BARANOF	USC00500522	lognormal
BARROW POST ROGERS AP	USW00027502	lognormal
BARTER ISLAND WSO AP	USW00027401	lognormal
BEAVER CREEK A	CA002100160	log-logistic
BEAVER FALLS	USC00500657	log-logistic
BELUGA	USC00500685	Nakagami
BENS FARM	USC00500707	gamma
BETHEL AP	USW00026615	Birnbaum-Saunders
BETTLES AP	USW00026533	lognormal
BIG DELTA AP	USW00026415	inverse Gaussian
BIG RIVER LAKES	USC00500788	normal
BLANCHARD RIVER	CA002100163	log-logistic
BOB QUINN AGS	CA001200R0J	Weibull
BUHTA PROVIDENJA	RSM00025594	gamma
BURWASH A	CA002100182	log-logistic
CAMPBELL CREEK SCI CR	USC00501220	normal
CANNERY CREEK	USC00501240	normal
CANTWELL 2 E	USC00501243	inverse Gaussian
CAPE HINCHINBROOK	USC00501308	Nakagami
CAPE LISBURNE	USC00501312	inverse Gaussian
CAPE LISBURNE AFS	USW00026631	lognormal
CAPE NEWENHAM	USC00501314	Birnbaum-Saunders
CAPE NEWENHAM AFS	USW00025623	gamma
CAPE ROMANZOF	USC00501318	log-logistic
CAPE ROMANZOF AFS	USW00026633	log-logistic
CAPE SARICHEF LT STN	USC00501325	inverse Gaussian
CAPE SPENCER	USC00501334	log-logistic
CAPE ST ELIAS	USC00501321	Nakagami
CARCROSS	CA002100200	logistic
CARMACKS	CA002100300	lognormal
CENTRAL #2	USC00501466	logistic
CHANDALAR LAKE	USC00501492	log-logistic
CHANDALAR SHELF DOT	USC00501497	normal
CHENA HOT SPRINGS	USC00501574	lognormal
CHENA RIDGE	USC00501557	normal
CHICKEN	USC00501684	normal
CHULITNA RVR	USC00501926	gamma
CIRCLE CITY	USC00501977	logistic
CIRCLE HOT SPRINGS	USC00501987	inverse Gaussian

CLEAR 4 N	USC00502005	inverse Gaussian
CLEARWATER	USC00502019	inverse Gaussian
COLD BAY AP	USW00025624	log-logistic
Coldfoot	USS0050S01S	logistic
COLLEGE 5 NW	USC00502112	lognormal
COLLEGE OBSY	USC00502107	Birnbaum-Saunders
COLVILLE VILLAGE	USC00502126	lognormal
Cooper Lake	USS0049L10S	logistic
COOPER LAKE PROJECT	USC00502144	Birnbaum-Saunders
COOPER LANDING 5 W	USC00502149	inverse Gaussian
CORDOVA M K SMITH AP	USW00026410	lognormal
CORDOVA N	USC00502173	inverse Gaussian
DAWSON	CA002100400	inverse Gaussian
DAWSON A	CA002100402	log-logistic
DEASE LAKE	CA001192340	inverse Gaussian
DELTA 5 NE	USC00502350	logistic
DELTA 6N	USC00502339	logistic
DELTA JUNCTION 20SE	USC00502352	normal
DILLINGHAM FAA AP	USC00502457	Nakagami
DRURY CREEK	CA002100460	gamma
DRY CREEK	USC00502568	normal
DUTCH HARBOR	USC00502587	inverse Gaussian
EAGLE	USC00502607	inverse Gaussian
EAGLE PLAINS	CA002100468	log-logistic
EAGLE RVR 5 SE	USC00502656	inverse Gaussian
EAGLE RVR GAKONA CIRCLE	USC00502645	inverse Gaussian
EAGLE RVR NATURE CTR	USC00502642	Rayleigh
Eagle Summit	USS0045Q05S	lognormal
EGVEKINOT	RSM00025378	lognormal
EIELSON FLD	USC00502707	inverse Gaussian
EIELSON FLD	USW00026407	Nakagami
EKLUTNA LAKE	USC00502725	normal
EKLUTNA PROJECT	USC00502730	lognormal
EKLUTNA WTP	USC00502737	Rayleigh
ELDRED ROCK	USC00502770	Nakagami
ELFIN COVE	USC00502785	Rayleigh
ELMENDORF AFB	USW00026401	gamma
EMMONAK	USC00502825	lognormal
ESTER	USC00502870	Nakagami
ESTER 5NE	USC00502871	logistic

ESTER DOME	USC00502868	Nakagami
FAIRBANKS AP #2	USC00502965	Nakagami
FAIRBANKS INTL AP	USW00026411	Birnbaum-Saunders
FAIRBANKS MIDTOWN	USC00502970	Nakagami
FAREWELL FAA AP	USW00026519	inverse Gaussian
FAREWELL LAKE	USC00503009	Rayleigh
FARO A	CA002100517	Nakagami
FLAT	USC00503085	normal
FORT MCPHERSON A	CA002201601	log-logistic
Fort Yukon	USS0045R01S	lognormal
FOX 2SE	USC00503181	Birnbaum-Saunders
FRASER CAMP	CA00120C036	normal
FT KNOX MINE	USC00503160	Rayleigh
FT RICHARDSON WTP	USC00503163	lognormal
FT YUKON	USW00026413	Nakagami
FUNTER BAY	USC00503198	logistic
GAKONA 1 N	USC00503205	inverse Gaussian
GALENA	USC00503212	lognormal
GALENA AP	USW00026501	gamma
GAMBELL	USW00026703	lognormal
GILMORE CREEK	USC00503275	lognormal
GIRDWOOD	USC00503283	log-logistic
GLACIER BAY	USC00503294	Rayleigh
GLEN ALPS	USC00503299	normal
GLENNALLEN KCAM	USC00503304	Birnbaum-Saunders
Gobblers Knob	USS0050R04S	Birnbaum-Saunders
GRAHAM INLET	CA001203255	Birnbaum-Saunders
Granite Crk	USS0045O04S	lognormal
Grouse Creek Divide	USS0049L14S	logistic
GULKANA AP	USW00026425	Birnbaum-Saunders
GUSTAVUS	USW00025322	Birnbaum-Saunders
HAINES #2	USC00503502	inverse Gaussian
HAINES 40 NW	USC00503504	lognormal
HAINES JUNCTION	CA002100630	log-logistic
HAINES JUNCTION YTG	CA002100631	normal
HAINES TERMINAL	USC00503500	inverse Gaussian
HALIBUT COVE	USC00503530	inverse Gaussian
HAYES RIVER	USC00503573	logistic
HEALY	USC00503585	inverse Gaussian
HIDDEN FALLS HATCHERY	USC00503605	gamma

HOLLIS	USC00503650	Nakagami
HOLY CROSS	USC00503655	inverse Gaussian
HOMER 5 NW	USC00503670	Weibull
HOMER 8 NW	USC00503672	Rayleigh
HOMER 9 E	USC00503682	Nakagami
HOMER AP	USW00025507	inverse Gaussian
HOONAH	USC00503695	gamma
HOPE	USC00503720	inverse Gaussian
HOUSTON	USC00503731	lognormal
HUGHES	USC00503765	inverse Gaussian
HYDER	USC00503821	Nakagami
ILIAMNA AP	USW00025506	Birnbaum-Saunders
Independence Mine	USS0049M26S	log-logistic
INDIAN MTN	USC00503910	inverse Gaussian
INDIAN MTN AFS	USW00026535	inverse Gaussian
INTRICATE BAY	USC00503933	inverse Gaussian
INUVIK A	CA002202570	logistic
INUVIK CLIMATE	CA002202578	inverse Gaussian
INUVIK UA	CA002202582	log-logistic
IVVAVIK NAT. PARK	CA002100660	Rayleigh
Johnsons Camp	USS0064P01S	Weibull
JOHNSONS CROSSING	CA002100670	Nakagami
JUNEAU 9 NW	USC00504110	Birnbaum-Saunders
JUNEAU DWTN	USC00504094	gamma
JUNEAU FORECAST OFFICE	USC00504103	inverse Gaussian
JUNEAU INTL AP	USW00025309	Rayleigh
JUNEAU LENA PT	USC00504107	Birnbaum-Saunders
JUNEAU MILE 17	USC00504109	inverse Gaussian
JUNEAU OUTER PT	USC00504117	Birnbaum-Saunders
Kachemak Creek	USS0050K07S	normal
KAKE	USC00504155	Birnbaum-Saunders
Kantishna	USS0050O01S	Weibull
KASILOF 3 NW	USC00504425	Nakagami
KASITSNA BAY	USC00504429	logistic
KENAI 9N	USC00504550	Rayleigh
Kenai Moose Pens	USS0050L02S	inverse Gaussian
KENAI MUNI AP	USW00026523	Nakagami
KENNY LAKE 7SE	USC00504567	Nakagami
KETCHIKAN CARLANNA CK	USC00504600	normal
KETCHIKAN INTL AP	USW00025325	lognormal

KEYSTONE RIDGE	USC00504621	Nakagami
KING SALMON	USW00025503	inverse Gaussian
KITOI BAY	USC00504812	inverse Gaussian
KLONDIKE	CA002100679	lognormal
KOBE HILL	USC00504971	logistic
KOBUK	USC00504964	lognormal
KODIAK AP	USW00025501	lognormal
KOMAKUK BEACH A	CA002100685	Birnbaum-Saunders
KOTZEBUE 25 N	USC00505051	inverse Gaussian
KOTZEBUE RALPH WEIN AP	USW00026616	lognormal
KUPARUK	USC00505136	gamma
LADD AAB	USW00026403	normal
LAKE SUSITNA	USC00505397	normal
LAZY MTN	USC00505464	Nakagami
LINGER LONGER	USC00505506	lognormal
LITTLE PORT WALTER	USC00505519	lognormal
Long Lake	USS0033J01S	gamma
MACMILLAN PASS	CA002100693	Nakagami
MAIN BAY	USC00505604	normal
MANKOMEN LAKE	USC00505607	Rayleigh
MANLEY HOT SPRINGS	USC00505644	normal
MARGARET LAKE	CA002100697	extreme value
MATANUSKA EXP FARM	USC00505733	inverse Gaussian
MAYO A	CA002100700	gamma
MCCARTHY 3 SW	USC00505757	inverse Gaussian
MCGRATH AP	USW00026510	lognormal
MCKINLEY PARK	USC00505778	inverse Gaussian
Mcneil Canyon	USS0051K14S	normal
MCQUESTEN	CA002100719	inverse Gaussian
Middle Fork Bradley	USS0050K05S	logistic
MILE 42 STEESE	USC00505880	inverse Gaussian
MINCHUMINA	USC00505881	Birnbaum-Saunders
MIRROR LAKE SCOUT CAMP	USC00505883	gamma
MOOSE PASS 3 NW	USC00505894	Rayleigh
Moraine	USS0048M04S	logistic
MOSES POINT FAA AP	USW00026620	inverse Gaussian
Mt. Eyak	USS0045L01S	Weibull
MYS SHMIDTA	RSM00025173	lognormal
MYS UELEN	RSM00025399	Weibull
N POLE	USC00506581	log-logistic

NABESNA	USC00506147	inverse Gaussian
NENANA MUNI AP	USW00026435	gamma
NOATAK	USC00506463	Birnbaum-Saunders
NOME MUNI AP	USW00026617	lognormal
NORTHEAST CAPE	USW00026632	inverse Gaussian
NORTHWAY AP	USW00026412	log-logistic
Nuka Glacier	USS0050K06S	logistic
NUNIVAK	USC00506727	Birnbaum-Saunders
NYAC	USC00506760	lognormal
OGILVIE RIVER	CA002100794	log-logistic
OLD CROW A	CA002100800	Birnbaum-Saunders
OLD EDGERTON	USC00506777	inverse Gaussian
OSTROV VRANGELJA	RSM00021982	lognormal
PALMER 1 N	USC00506871	lognormal
PALMER JOB CORPS	USC00506870	Birnbaum-Saunders
Pargon Creek	USS0063P02S	Rayleigh
PAXSON	USC00507097	Birnbaum-Saunders
PAXSON RIVER	USC00507105	Nakagami
PELICAN	USC00507141	lognormal
PELLY RANCH	CA002100880	Nakagami
PETERSBURG 1	USW00025329	lognormal
PLANT MATERIALS CTR	USC00507352	Rayleigh
PLATINUM	USC00507365	inverse Gaussian
POINT MACKENZIE	USC00507444	extreme value
Point Mackenzie	USS0050M03S	inverse Gaussian
POINT RETREAT LT STN	USC00507451	Rayleigh
PORT ALCAN	USC00507513	lognormal
PORT ALEXANDER	USC00507557	lognormal
PORT ALSWORTH	USC00507570	inverse Gaussian
PORT CLARENCE	USC00507669	log-logistic
Port Graham	USS0051K15S	Rayleigh
PORT HEIDEN	USW00025508	log-logistic
PORT SAN JUAN	USC00507738	Rayleigh
PORTAGE 1 S	USC00507494	inverse Gaussian
PORTER CREEK WAHL	CA002100907	inverse Gaussian
PRINCE RUPERT A	CA001066481	log-logistic
PRINCE RUPERT MONT CIRC	CA001066488	lognormal
PRINCE RUPERT SHAWATLANS	CA001066493	log-logistic
PRUDHOE BAY	USC00507780	logistic
PUNTILLA	USC00507783	lognormal

Rocky Point	USS0063P01S	normal
ROSS RIVER A	CA002100940	Nakagami
SALCHA	USC00508140	inverse Gaussian
SANDSPIT A	CA001057050	lognormal
SEWARD 19N	USC00508377	Nakagami
SEWARD 8 NW	USC00508375	normal
SEWARD AP	USW00026438	Birnbaum-Saunders
SHEEP MTN CAA AP	USW00026439	normal
SHINGLE POINT A	CA002100950	Weibull
SILVER LAKE	USC00508470	Weibull
SITKA AIRPORT	USW00025333	Nakagami
SITKA MAGNETIC OBSY	USC00508503	gamma
SKAGWAY	USC00508525	inverse Gaussian
SKWENTNA	USW00026514	gamma
SLANA	USC00508547	Birnbaum-Saunders
SNAG A	CA002101000	inverse Gaussian
SNETTISHAM PWR PLT	USC00508584	inverse Gaussian
SNOWSHOE LAKE	USC00508594	inverse Gaussian
SOLDOTNA 5SSW	USC00508615	inverse Gaussian
SOURDOUGH 1 N	USC00508625	Rayleigh
SPARREVOHN	USC00508666	Rayleigh
SPARREVOHN MTN AFS	USW00026534	lognormal
ST MARYS	USC00508105	Rayleigh
ST PAUL ISLAND AP	USW00025713	lognormal
STEWART CROSSING	CA002101030	lognormal
Summit Creek	USS0049L19S	logistic
SUMMIT WSO AP	USW00026414	Nakagami
Susitna Valley High	USS0050N07S	lognormal
SUTTON 1 W	USC00508915	log-logistic
SWIFT RIVER	CA002101081	logistic
TAHNETA PASS	USC00508945	gamma
TAKHINI RIVER RANCH	CA002101095	Nakagami
TALKEETNA AP	USW00026528	inverse Gaussian
TANACROSS	USW00026440	log-logistic
TANANA CALHOUN MEM AP	USW00026529	Rayleigh
TATALINA	USW00026536	Nakagami
TELEGRAPH CREEK	CA001208041	normal
TESLIN (AUT)	CA002101102	normal
TESLIN A	CA002101100	lognormal
TIN CITY	USW00026634	lognormal

TODAGIN RANCH	CA001208202	logistic
TOK SCHOOL	USC00509313	normal
Tokositna Valley	USS0050N05S	inverse Gaussian
TONSINA	USC00509385	log-logistic
TRAPPER CREEK 7SW	USC00509398	log-logistic
TRI NAL ACRES	USC00509421	Rayleigh
TRIMS CAMP	USC00509410	inverse Gaussian
TUKTOYAKTUK	CA002203910	log-logistic
TUKTOYAKTUK A	CA002203912	gamma
Turnagain Pass	USS0049L13S	inverse Gaussian
TUTKA BAY LAGOON	USC00509460	lognormal
TWO RIVERS	USC00509489	lognormal
UMIAT	USW00026508	lognormal
UNALAKLEET FLD	USW00026627	lognormal
UNIVERSITY EXP STN	USC00509641	Birnbaum-Saunders
UNUK RIVER ESKAY CREEK	CA001078L3D	log-logistic
Upper Chena	USS0044Q07S	Weibull
Upper Nome Creek	USS0046Q07S	normal
Upper Tsaina River	USS0045M07S	lognormal
VALDEZ AIRPORT	USC00509685	lognormal
VALDEZ WSO	USW00026442	gamma
WAINWRIGHT AP	USW00027503	lognormal
WALES	USW00026618	Rayleigh
WALLY NOERENBERG HATCHERY	USC00509747	Birnbaum-Saunders
WASILLA 2 NE	USC00509765	inverse Gaussian
WASILLA 3 S	USC00509759	Rayleigh
WHITEHORSE A	CA002101300	lognormal
WHITEHORSE RIVERDALE	CA002101400	lognormal
WHITES CROSSING	USC00509790	gamma
WHITESTONE FARMS	USC00509793	Nakagami
WHITTIER	USC00509829	Rayleigh
WILLOW HWY CAMP	USC00509864	logistic
WILLOW WEST	USC00509861	log-logistic
WISEMAN	USC00509869	normal
WOODSMOKE	USC00509891	Birnbaum-Saunders
WRANGELL AP	USC00509919	Birnbaum-Saunders
YAKATAGA AP	USW00026445	inverse Gaussian
YAKUTAT STATE AP	USW00025339	lognormal

Appendix 4 – Station Plots

Appendix 4 presents four plots for each station. The top left plot depicts the station location as a red dot and provides the latitude, longitude, and elevation for the given station. The top right plot is a probability plot that depicts the cleaned seasonal maximums as blue circles, and has had the x-axis and y-axis scaled so the solid black distribution line appears linear. The bottom left plot depicts all the cleaned and un-cleaned (raw) data for the life of the station; each seasonal year is overlain on top of each other with December occurring near the middle of the x-axis. The bottom right plot depicts all the cleaned and un-cleaned data for the life of the station in chronological order. For both of the bottom plots the cleaned data is overlain on top of the raw data; readings removed during the cleaning process allow the raw data (red points) to become visible. Additionally extreme outliers greater than 10 times the mean and all negative values were excluded from the plots, to prevent scale compression on the y-axis.